









Business Data Analyst (Retail)

QP Code: RAS/Q0111

Version: 1.0

NSQF Level: 5.5

Retail Associated Skill Council of India (RASCI) || 703-704 Sagar Tech Plaza - A, Andheri-Kurla Road,
Sakinaka Junction, Andheri (E)
Mumbai-400072 || email:amol.kulkarni@rasci.in









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RAS/Q0111: Business Data Analyst (Retail)

Brief Job Description

This qualification reflects the role of a Business Data Analyst (Retail) who works in the retail industry, analyzing data, streamlining business processes, and driving strategic decisions. BA supports various retail operations such as sales, marketing, supply chain, and customer service by providing data-driven insights. Individuals in this role use business intelligence tools, data analytics software, and market research techniques to improve business performance and enhance profitability.

Personal Attributes

A Business Data Analyst (Retail) should be analytical, detail-oriented, and skilled in problem-solving. They must understand retail operations and effectively communicate data insights to various teams. Proficiency in analytics tools, strong collaboration skills, time management, and a commitment to confidentiality and continuous learning are essential for success in this role.

Applicable National Occupational Standards (NOS)

Compulsory NOS:

- 1. RAS/N0169: Integrate Data and Generate Reports
- 2. RAS/N0170: Analyze Customer Behavior and Personalize Marketing
- 3. RAS/N0171: Evaluate Financial Performance and Prepare Forecasts
- 4. RAS/N0172: Optimize Sales and Marketing Strategies
- 5. RAS/N0173: Manage Supply Chain and Optimize Inventory
- 6. RAS/N0174: Conduct Competitive Intelligence and Market Research
- 7. RAS/N0175: Data Analysis Using Tools and Technology Tools
- 8. DGT/VSQ/N0103: Employability Skills (90 Hours)

Qualification Pack (QP) Parameters

| Sector | Retail |
|------------|--|
| Sub-Sector | Retail Operations, FMCG, E-commerce, Retail Business |
| Occupation | Store Operations, Sales Operations |









| Country | India |
|--|--|
| NSQF Level | 5.5 |
| Credits | 22 |
| Aligned to NCO/ISCO/ISIC Code | NCO-2015/ 1211.9900 |
| Minimum Educational Qualification & Experience | Completed 3 year UG degree (Data Science or Computer applications/ computer science) OR Previous relevant Qualification of NSQF Level (5) with 1.5 years of experience Relevant experience in data management in Retail operations OR Previous relevant Qualification of NSQF Level (4.5) with 3 Years of experience Relevant experience in data management in Retail operations |
| Minimum Level of Education for Training in School | |
| Pre-Requisite License or Training | NA |
| Minimum Job Entry Age | 14 Years |
| Last Reviewed On | NA |
| Next Review Date | 08/05/2028 |
| NSQC Approval Date | 08/05/2025 |
| Version | 1.0 |
| Reference code on NQR | QG-5.5-OR-04251-2025-V1-RASCI |
| NQR Version | 1.0 |









RAS/N0169: Integrate Data and Generate Reports

Description

This NOS covers the skills and knowledge required to gather, integrate, and analyze data from retail business sources to generate reports that support strategic decision-making.

Scope

The scope covers the following:

- Analyze retail data from various sources.
- Generate reports to support business decisions..

Elements and Performance Criteria

To be competent, the user/individual on the job must be able to:

- **PC1.** Integrate data from CRM, transactional, and inventory systems using Extract, Transform, Load (ETL) processes
- **PC2.** Ensure data quality and consistency through validation and cleansing processes
- PC3. Build automated dashboards using BI tools like Power BI/Tableau
- **PC4.** Develop SQL queries to retrieve data from multiple databases
- PC5. Collaborate with IT to ensure seamless data integration infrastructure
- **PC6.** Ensure data privacy compliance

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** Basic structure and types of data in CRM, transactional, and inventory systems used in retail
- KU2. Concepts and steps of the Extract, Transform, Load (ETL) process for integrating data
- **KU3.** Techniques and tools for validating, cleansing, and transforming data to ensure accuracy and consistency
- **KU4.** Features, functionalities, and applications of Business Intelligence (BI) tools such as Power BI and Tableau
- **KU5.** Fundamentals of SQL and methods to write and execute queries for data extraction from multiple databases
- **KU6.** Retail data architecture and the role of IT infrastructure in supporting seamless data integration
- **KU7.** Data privacy laws and compliance standards relevant to retail data handling (e.g., GDPR, local regulations)
- **KU8.** Importance of accurate data reporting for decision-making in retail operations

Generic Skills (GS)









User/individual on the job needs to know how to:

- **GS1.** Ability to communicate effectively with team members, stakeholders, and IT personnel for smooth data operations
- **GS2.** Strong analytical skills to identify trends, inconsistencies, and insights in large retail datasets
- **GS3.** Proficiency in using BI and data integration tools, including dashboards, queries, and reporting interfaces
- **GS4.** Logical thinking and problem-solving approach to resolve data integration or reporting challenges
- **GS5.** Attention to detail for ensuring high data quality and compliance with privacy guidelines
- **GS6.** Time management skills to handle multiple data tasks and meet reporting deadlines
- **GS7.** Adaptability to work with evolving data technologies and business needs in a retail environment









Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|-----------------|--------------------|------------------|---------------|
| | 40 | 60 | - | - |
| PC1 . Integrate data from CRM, transactional, and inventory systems using Extract, Transform, Load (ETL) processes | 10 | 10 | - | - |
| PC2. Ensure data quality and consistency through validation and cleansing processes | 5 | 10 | - | - |
| PC3. Build automated dashboards using BI tools like Power BI/Tableau | 10 | 20 | - | - |
| PC4. Develop SQL queries to retrieve data from multiple databases | 5 | 10 | - | - |
| PC5. Collaborate with IT to ensure seamless data integration infrastructure | 5 | 5 | - | - |
| PC6. Ensure data privacy compliance | 5 | 5 | - | - |
| NOS Total | 40 | 60 | - | - |









National Occupational Standards (NOS) Parameters

| NOS Code | RAS/N0169 |
|---------------------|-------------------------------------|
| NOS Name | Integrate Data and Generate Reports |
| Sector | Retail |
| Sub-Sector | |
| Occupation | Store Operations |
| NSQF Level | 5.5 |
| Credits | 2 |
| Version | 1.0 |
| Last Reviewed Date | 08/05/2025 |
| Next Review Date | 08/05/2028 |
| NSQC Clearance Date | 08/05/2025 |









RAS/N0170: Analyze Customer Behavior and Personalize Marketing

Description

This NOS covers the skills and knowledge required to analyze customer data and behavioral patterns to design and support targeted, personalized marketing campaigns. It involves using data analytics tools to segment customers, identify preferences, predict buying behavior, and recommend personalized offers that enhance customer engagement and drive sales

Scope

The scope covers the following:

- Analyze customer demographics, transactions, and behavior patterns using data tools.
- Support personalized marketing strategies based on customer insights.

Elements and Performance Criteria

To be competent, the user/individual on the job must be able to:

- **PC1.** Analyze customer purchase history and browsing behavior using CRM tools
- PC2. Segment customers into distinct groups based on demographics, behavior, and preferences
- PC3. Develop personalized marketing strategies based on customer segmentation
- PC4. Use predictive analytics and machine learning to forecast customer behavior
- **PC5.** Analyze customer feedback and social media sentiment to adjust marketing strategies
- **PC6.** Measure the effectiveness of personalized marketing campaigns using KPIs

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** Concepts of customer behavior, buying patterns, and the importance of behavioral data in retail marketing
- **KU2.** Functions and usage of CRM tools to extract and analyze customer data, including purchase history and browsing behavior
- **KU3.** Techniques and criteria for customer segmentation, such as demographics, preferences, and behavioral attributes
- **KU4.** Principles of personalized marketing and how segmentation supports targeted marketing strategies
- **KU5.** Basics of predictive analytics and machine learning models used for forecasting customer trends and future behavior
- **KU6.** Methods to gather and analyze customer feedback and sentiment from social media and other online platforms
- **KU7.** Key Performance Indicators (KPIs) used to evaluate the success of personalized marketing campaigns (e.g., click-through rates, conversion rates, engagement levels)









KU8. Compliance requirements and ethical considerations in handling customer data for personalized marketing

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** Ability to communicate insights and marketing ideas clearly to internal stakeholders, including marketing and sales teams
- **GS2.** Analytical thinking to interpret customer data, identify patterns, and derive meaningful insights
- **GS3.** Proficiency in using CRM software, analytics tools, and dashboards for behavior tracking and segmentation
- **GS4.** Problem-solving skills to refine marketing strategies based on campaign performance and feedback
- GS5. Digital literacy and the ability to work with predictive analytics models and AI tools
- **GS6.** Attention to detail to ensure accurate analysis and relevant marketing personalization
- **GS7.** Time management and organizational skills to execute data-driven marketing initiatives within project timelines









Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|-----------------|--------------------|------------------|---------------|
| | 40 | 60 | - | - |
| PC1. Analyze customer purchase history and browsing behavior using CRM tools | 10 | 10 | - | - |
| PC2. Segment customers into distinct groups based on demographics, behavior, and preferences | 5 | 10 | - | - |
| PC3. Develop personalized marketing strategies based on customer segmentation | 10 | 10 | - | - |
| PC4. Use predictive analytics and machine learning to forecast customer behavior | 5 | 10 | - | - |
| PC5. Analyze customer feedback and social media sentiment to adjust marketing strategies | 5 | 10 | - | - |
| PC6. Measure the effectiveness of personalized marketing campaigns using KPIs | 5 | 10 | - | - |
| NOS Total | 40 | 60 | - | - |









National Occupational Standards (NOS) Parameters

| NOS Code | RAS/N0170 |
|---------------------|---|
| NOS Name | Analyze Customer Behavior and Personalize Marketing |
| Sector | Retail |
| Sub-Sector | |
| Occupation | Store Operations |
| NSQF Level | 5.5 |
| Credits | 3 |
| Version | 1.0 |
| Last Reviewed Date | 08/05/2025 |
| Next Review Date | 08/05/2028 |
| NSQC Clearance Date | 08/05/2025 |









RAS/N0171: Evaluate Financial Performance and Prepare Forecasts

Description

This NOS covers the skills and knowledge required to analyze financial performance data and prepare accurate budget forecasts to support strategic decision-making in retail operations. It involves evaluating revenue, profit margins, costs, and key financial indicators, and collaborating with finance teams to align business forecasts with overall financial goals.

Scope

The scope covers the following:

- Analyze financial data, KPIs, and costs to assess performance and identify improvement areas
- Prepare forecasts and reports to support budgeting and financial planning

Elements and Performance Criteria

To be competent, the user/individual on the job must be able to:

- **PC1.** Analyze sales revenue, profit margins, and financial metrics using dashboards
- PC2. Prepare budget forecasts based on historical data and market conditions
- **PC3.** Identify cost-saving opportunities through analysis of operational expenses
- PC4. Develop financial reports using tools like Excel and SAP
- PC5. Monitor financial KPIs such as ROI and gross margins
- **PC6.** Collaborate with finance to ensure alignment of business goals

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** Concepts of retail financial performance including sales revenue, profit margins, and operating costs
- **KU2.** Use of dashboards and financial tools (e.g., Excel, SAP) for analyzing and reporting financial metrics
- KU3. Methods of preparing forecasts using historical sales data, trends, and market conditions
- **KU4.** Techniques to identify cost-saving opportunities through expense analysis
- **KU5.** Key financial KPIs such as Return on Investment (ROI), gross margins, and their business relevance
- **KU6.** Budgeting principles and their application in financial planning
- **KU7.** Importance of financial alignment with business strategies and operational goals
- **KU8.** Basics of collaboration with finance departments for data accuracy, compliance, and alignment

Generic Skills (GS)









User/individual on the job needs to know how to:

- **GS1.** Communication skills to coordinate effectively with finance and business teams
- GS2. Analytical skills to interpret financial data and derive insights for performance improvement
- GS3. Proficiency in Excel, SAP, and other reporting tools used in retail financial analysis
- GS4. Attention to detail to ensure accuracy in financial data, forecasts, and reports
- **GS5.** Problem-solving skills to identify financial risks and recommend corrective actions
- **GS6.** Time management to meet forecasting and reporting deadlines
- **GS7.** Critical thinking to evaluate financial performance trends and support decision-making









Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|-----------------|--------------------|------------------|---------------|
| | 30 | 70 | - | - |
| PC1. Analyze sales revenue, profit margins, and financial metrics using dashboards | 5 | 20 | - | - |
| PC2. Prepare budget forecasts based on historical data and market conditions | 5 | 15 | - | - |
| PC3. Identify cost-saving opportunities through analysis of operational expenses | 5 | 10 | - | - |
| PC4. Develop financial reports using tools like Excel and SAP | 5 | 15 | - | - |
| PC5. Monitor financial KPIs such as ROI and gross margins | 5 | 5 | - | - |
| PC6. Collaborate with finance to ensure alignment of business goals | 5 | 5 | - | - |
| NOS Total | 30 | 70 | - | - |









National Occupational Standards (NOS) Parameters

| NOS Code | RAS/N0171 |
|---------------------|--|
| NOS Name | Evaluate Financial Performance and Prepare Forecasts |
| Sector | Retail |
| Sub-Sector | |
| Occupation | Store Operations |
| NSQF Level | 5.5 |
| Credits | 2 |
| Version | 1.0 |
| Last Reviewed Date | 08/05/2025 |
| Next Review Date | 08/05/2028 |
| NSQC Clearance Date | 08/05/2025 |









RAS/N0172: Optimize Sales and Marketing Strategies

Description

This NOS covers the skills and knowledge required to analyze sales data and marketing performance to optimize strategies that drive business growth. It includes identifying trends, evaluating campaign effectiveness, developing pricing strategies, and collaborating with marketing and sales teams to enhance performance and profitability.

Scope

The scope covers the following:

- Analyze sales and marketing data to identify trends, gaps, and performance drivers
- Support strategic decisions in pricing, promotions, and team effectiveness through data insights

Elements and Performance Criteria

To be competent, the user/individual on the job must be able to:

- PC1. Analyze sales data to identify trends and top-performing products
- **PC2.** Evaluate marketing campaigns by analyzing metrics like Customer Acquisition Cost (CAC) and Return on Advertisement Spend (ROAS)
- PC3. Develop competitive pricing strategies based on competitor pricing and customer demand
- PC4. Generate sales performance reports using BI tools
- **PC5.** Measure sales team performance and identify areas for improvement
- **PC6.** Collaborate with marketing teams to refine strategies based on sales data

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** Principles of sales performance analysis and interpretation of key metrics such as revenue, volume, and product mix
- **KU2.** Metrics for marketing campaign evaluation including Customer Acquisition Cost (CAC), Return on Advertisement Spend (ROAS), and conversion rates
- **KU3.** Techniques for competitor pricing analysis and strategies to set competitive yet profitable pricing
- **KU4.** Use of Business Intelligence (BI) tools for generating sales and marketing reports and dashboards
- **KU5.** Methods to assess sales team performance and identify areas for upskilling or restructuring
- **KU6.** Importance of aligning sales and marketing strategies to customer behavior, product demand, and business goals
- **KU7.** Basics of collaboration with sales and marketing teams to refine and implement data-driven strategies
- **KU8.** Ethical use of sales and marketing data for decision-making









Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** Strong analytical skills to identify patterns, trends, and actionable insights from large datasets
- GS2. Communication skills to present findings and collaborate with cross-functional teams
- GS3. Digital literacy and proficiency in BI tools and marketing analytics platforms
- **GS4.** Problem-solving ability to address performance gaps and improve campaign effectiveness
- GS5. Strategic thinking to support pricing, promotional, and sales optimization decisions
- **GS6.** Attention to detail for accurate measurement of KPIs and reporting
- **GS7.** Time management and organizational skills to handle multiple analysis and reporting tasks efficiently









Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|-----------------|--------------------|------------------|---------------|
| | 40 | 60 | - | - |
| PC1. Analyze sales data to identify trends and top-performing products | 5 | 10 | - | - |
| PC2. Evaluate marketing campaigns by analyzing metrics like Customer Acquisition Cost (CAC) and Return on Advertisement Spend (ROAS) | 10 | 10 | - | - |
| PC3. Develop competitive pricing strategies based on competitor pricing and customer demand | 10 | 10 | - | - |
| PC4. Generate sales performance reports using BI tools | 5 | 10 | - | - |
| PC5. Measure sales team performance and identify areas for improvement | 5 | 10 | - | - |
| PC6. Collaborate with marketing teams to refine strategies based on sales data | 5 | 10 | - | - |
| NOS Total | 40 | 60 | - | - |









National Occupational Standards (NOS) Parameters

| NOS Code | RAS/N0172 |
|---------------------|---|
| NOS Name | Optimize Sales and Marketing Strategies |
| Sector | Retail |
| Sub-Sector | |
| Occupation | Store Operations |
| NSQF Level | 5.5 |
| Credits | 3 |
| Version | 1.0 |
| Last Reviewed Date | 08/05/2025 |
| Next Review Date | 08/05/2028 |
| NSQC Clearance Date | 08/05/2025 |









RAS/N0173: Manage Supply Chain and Optimize Inventory

Description

This NOS covers the skills and knowledge required to manage supply chain performance and optimize inventory levels using data-driven methods. It involves analyzing inventory turnover, forecasting demand, implementing efficient inventory practices, and enhancing supply chain efficiency to support business continuity and cost-effectiveness.

Scope

The scope covers the following:

- Analyze inventory and supply chain data to forecast demand and minimize costs.
- Improve inventory performance and supply chain efficiency through data-driven strategies.

Elements and Performance Criteria

To be competent, the user/individual on the job must be able to:

- PC1. Analyze inventory turnover rates using management systems like SAP/Oracle
- PC2. Collaborate with procurement teams to forecast demand
- PC3. Implement JIT inventory practices to minimize carrying costs
- **PC4.** Use predictive analytics to forecast inventory needs
- **PC5.** Optimize supply chain efficiency through analysis of lead times and logistics
- **PC6.** Develop inventory performance reports, including turnover rates and DOI (Days of Inventory)

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** Principles of inventory management including turnover rates, Days of Inventory (DOI), and inventory carrying costs
- **KU2.** Use of inventory and supply chain management systems like SAP and Oracle for data analysis
- **KU3.** Forecasting techniques using predictive analytics and historical sales data
- **KU4.** Just-In-Time (JIT) inventory practices and their impact on cost and efficiency
- **KU5.** Supply chain metrics such as lead time, logistics costs, and delivery accuracy
- **KU6.** Collaboration processes with procurement and logistics teams to align demand and supply
- **KU7.** Methods for creating inventory performance reports and dashboards
- **KU8.** Compliance, sustainability, and risk considerations in supply chain and inventory operations

Generic Skills (GS)

User/individual on the job needs to know how to:

GS1. Analytical skills to interpret inventory trends and forecast demand accurately









- **GS2.** Communication skills to coordinate with procurement, warehousing, and logistics teams
- **GS3.** Proficiency in ERP systems and analytics tools used for supply chain and inventory management
- **GS4.** Problem-solving ability to address supply chain inefficiencies and inventory imbalances
- GS5. Attention to detail for monitoring stock levels, turnover, and demand variability
- **GS6.** Strategic thinking for implementing JIT and optimizing inventory costs
- **GS7.** Time management to ensure timely forecasting, reporting, and collaboration across functions









Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|-----------------|--------------------|------------------|---------------|
| | 40 | 60 | - | - |
| PC1. Analyze inventory turnover rates using management systems like SAP/Oracle | 5 | 5 | - | - |
| PC2. Collaborate with procurement teams to forecast demand | 5 | 10 | - | - |
| PC3. Implement JIT inventory practices to minimize carrying costs | 5 | 10 | - | - |
| PC4. Use predictive analytics to forecast inventory needs | 10 | 20 | - | - |
| PC5. Optimize supply chain efficiency through analysis of lead times and logistics | 10 | 10 | - | - |
| PC6. Develop inventory performance reports, including turnover rates and DOI (Days of Inventory) | 5 | 5 | - | - |
| NOS Total | 40 | 60 | - | - |









National Occupational Standards (NOS) Parameters

| NOS Code | RAS/N0173 |
|---------------------|--|
| NOS Name | Manage Supply Chain and Optimize Inventory |
| Sector | Retail |
| Sub-Sector | |
| Occupation | Store Operations |
| NSQF Level | 5.5 |
| Credits | 3 |
| Version | 1.0 |
| Last Reviewed Date | 08/05/2025 |
| Next Review Date | 08/05/2028 |
| NSQC Clearance Date | 08/05/2025 |









RAS/N0174: Conduct Competitive Intelligence and Market Research

Description

This NOS covers the skills and knowledge required to gather and analyze market and competitor data to support strategic decision-making in the retail industry. It includes evaluating pricing strategies, market trends, emerging technologies, and external factors to identify opportunities, threats, and areas for business growth.

Scope

The scope covers the following:

- Conduct research and analyze competitor data, market trends, and external factors.
- Generate insights and strategic recommendations to support retail business decisions.

Elements and Performance Criteria

To be competent, the user/individual on the job must be able to:

- PC1. Conduct competitive analysis by gathering data on pricing and promotions
- PC2. Analyze market trends using research tools like Nielsen or Statista
- **PC3.** Identify market opportunities and threats by analyzing external factors (economic, political, technological)
- **PC4.** Create reports summarizing findings and strategic recommendations
- PC5. Monitor emerging retail technologies that impact the competitive landscape
- PC6. Provide insights on competitors' financial data, market share, and customer feedback

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** Principles and techniques of competitive analysis, including pricing, promotions, and positioning
- **KU2.** Use of market research tools and databases such as Nielsen, Statista, and similar platforms
- **KU3.** Methods to identify and evaluate external factors (PEST Political, Economic, Social, Technological) affecting retail business
- **KU4.** Metrics for assessing market share, brand positioning, and financial standing of competitors
- **KU5.** Best practices for gathering and analyzing customer sentiment and competitor reviews
- **KU6.** Emerging technologies and retail innovations that impact competitive advantage
- **KU7.** Report writing and presentation techniques to summarize market insights and suggest strategies
- **KU8.** Importance of ethical data sourcing and compliance in competitive research

Generic Skills (GS)









User/individual on the job needs to know how to:

- **GS1.** Analytical thinking to interpret market data, spot trends, and derive meaningful insights
- **GS2.** Communication skills to present findings clearly and make strategic recommendations
- GS3. Research skills to use online databases, industry reports, and competitor websites effectively
- **GS4.** Digital literacy to work with research tools, visualization platforms, and data sources
- GS5. Problem-solving ability to assess market threats and suggest proactive business responses
- **GS6.** Attention to detail when analyzing competitor strategies and customer feedback
- **GS7.** Strategic thinking to support long-term planning based on competitive intelligence









Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|-----------------|--------------------|------------------|---------------|
| | 40 | 60 | - | - |
| PC1. Conduct competitive analysis by gathering data on pricing and promotions | 5 | 10 | - | - |
| PC2. Analyze market trends using research tools like Nielsen or Statista | 10 | 10 | - | - |
| PC3. Identify market opportunities and threats by analyzing external factors (economic, political, technological) | 10 | 20 | - | - |
| PC4. Create reports summarizing findings and strategic recommendations | 5 | 10 | - | - |
| PC5. Monitor emerging retail technologies that impact the competitive landscape | 5 | 5 | - | - |
| PC6. Provide insights on competitors' financial data, market share, and customer feedback | 5 | 5 | - | - |
| NOS Total | 40 | 60 | - | - |









National Occupational Standards (NOS) Parameters

| NOS Code | RAS/N0174 |
|---------------------|--|
| NOS Name | Conduct Competitive Intelligence and Market Research |
| Sector | Retail |
| Sub-Sector | |
| Occupation | Store Operations |
| NSQF Level | 5.5 |
| Credits | 3 |
| Version | 1.0 |
| Last Reviewed Date | 08/05/2025 |
| Next Review Date | 08/05/2028 |
| NSQC Clearance Date | 08/05/2025 |









RAS/N0175: Data Analysis Using Tools and Technology Tools

Description

This NOS covers the skills and knowledge required to perform advanced data analysis using modern tools and technologies. It includes working with business intelligence platforms, programming languages, databases, cloud services, and automation tools to extract, process, and analyze retail data for improved decision-making and operational efficiency.

Scope

The scope covers the following:

- Use data analytics tools and programming languages to build dashboards, forecast trends, and manage databases.
- Streamline and automate data workflows using ETL, cloud platforms, and automation tools.

Elements and Performance Criteria

To be competent, the user/individual on the job must be able to:

- **PC1.** Use Power BI/Tableau to create interactive reports and dashboards
- PC2. Apply machine learning algorithms using Python or R to forecast customer behavior
- PC3. Manage databases using SQL for data retrieval and manipulation
- PC4. Integrate data from multiple sources using Extract, Transform, Load (ETL) processes
- PC5. Leverage cloud platforms like AWS/Azure for data storage and processing
- **PC6.** Implement automation tools like Alteryx for streamlining data tasks

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** Functions and features of BI tools like Power BI and Tableau for creating interactive dashboards and visualizations
- **KU2.** Basics of machine learning algorithms and their application in forecasting customer behavior using Python or R
- **KU3.** Structured Query Language (SQL) for querying, updating, and managing relational databases
- **KU4.** ETL (Extract, Transform, Load) processes and tools used for integrating data from multiple sources
- **KU5.** Use of cloud platforms (e.g., AWS, Azure) for scalable data storage, processing, and analytics
- **KU6.** Automation platforms like Alteryx for automating repetitive data preparation and analysis tasks
- **KU7.** Data security, privacy, and compliance principles when working with digital tools and platforms
- **KU8.** Importance of tool selection based on data types, business needs, and analysis complexity









Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** Technical proficiency in working with data visualization, programming, and automation tools
- GS2. Analytical skills to apply statistical and machine learning techniques for meaningful insights
- **GS3.** Communication skills to explain complex data processes and results to non-technical stakeholders
- **GS4.** Problem-solving ability to troubleshoot data integration and processing issues
- GS5. Time management to handle multiple tools and data pipelines efficiently
- **GS6.** Attention to detail to ensure accuracy in automated workflows and data outputs
- GS7. Continuous learning mindset to stay updated with evolving data technologies and tools









Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|---|-----------------|--------------------|------------------|---------------|
| | 30 | 70 | - | - |
| PC1. Use Power BI/Tableau to create interactive reports and dashboards | 5 | 20 | - | - |
| PC2. Apply machine learning algorithms using Python or R to forecast customer behavior | 5 | 20 | - | - |
| PC3. Manage databases using SQL for data retrieval and manipulation | 5 | 10 | - | - |
| PC4. Integrate data from multiple sources using Extract, Transform, Load (ETL) processes | 5 | 10 | - | - |
| PC5. Leverage cloud platforms like AWS/Azure for data storage and processing | 5 | 5 | - | - |
| PC6. Implement automation tools like Alteryx for streamlining data tasks | 5 | 5 | - | - |
| NOS Total | 30 | 70 | - | - |









National Occupational Standards (NOS) Parameters

| NOS Code | RAS/N0175 |
|---------------------|--|
| NOS Name | Data Analysis Using Tools and Technology Tools |
| Sector | Retail |
| Sub-Sector | |
| Occupation | Store Operations |
| NSQF Level | 5.5 |
| Credits | 3 |
| Version | 1.0 |
| Last Reviewed Date | 08/05/2025 |
| Next Review Date | 08/05/2028 |
| NSQC Clearance Date | 08/05/2025 |









DGT/VSQ/N0103: Employability Skills (90 Hours)

Description

This unit is about employability skills, Constitutional values, becoming a professional in the 21st Century, digital, financial, and legal literacy, diversity and Inclusion, English and communication skills, customer service, entrepreneurship, and apprenticeship, getting ready for jobs and career development.

Scope

The scope covers the following:

- Introduction to Employability Skills
- Constitutional values Citizenship
- Becoming a Professional in the 21st Century
- Basic English Skills
- Career Development & Goal Setting
- Communication Skills
- Diversity & Inclusion
- Financial and Legal Literacy
- Essential Digital Skills
- Entrepreneurship
- Customer Service
- Getting ready for Apprenticeship & Jobs

Elements and Performance Criteria

Introduction to Employability Skills

To be competent, the user/individual on the job must be able to:

- **PC1.** understand the significance of employability skills in meeting the current job market requirement and future of work
- **PC2.** identify and explore learning and employability relevant portals
- **PC3.** research about the different industries, job market trends, latest skills required and the available opportunities

Constitutional values - Citizenship

To be competent, the user/individual on the job must be able to:

- **PC4.** recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc.
- **PC5.** follow environmentally sustainable practices

Becoming a Professional in the 21st Century

To be competent, the user/individual on the job must be able to:

PC6. recognize the significance of 21st Century Skills for employment









- **PC7.** practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life
- **PC8.** adopt a continuous learning mindset for personal and professional development Basic English Skills

To be competent, the user/individual on the job must be able to:

- **PC9.** use basic English for everyday conversation in different contexts, in person and over the telephone
- **PC10.** read and understand routine information, notes, instructions, mails, letters etc. written in English
- **PC11.** write short messages, notes, letters, e-mails etc. in English

Career Development & Goal Setting

To be competent, the user/individual on the job must be able to:

- **PC12.** identify career goals based on the skills, interests, knowledge, and personal attributes
- PC13. prepare a career development plan with short- and long-term goals

Communication Skills

To be competent, the user/individual on the job must be able to:

- **PC14.** follow verbal and non-verbal communication etiquette while communicating in professional and public settings
- **PC15.** use active listening techniques for effective communication
- **PC16.** communicate in writing using appropriate style and format based on formal or informal requirements
- **PC17.** work collaboratively with others in a team

Diversity & Inclusion

To be competent, the user/individual on the job must be able to:

- PC18. communicate and behave appropriately with all genders and PwD
- **PC19.** escalate any issues related to sexual harassment at workplace according to POSH Act

Financial and Legal Literacy

To be competent, the user/individual on the job must be able to:

- **PC20.** identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc.
- **PC21.** carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook
- **PC22.** identify common components of salary and compute income, expenses, taxes, investments etc
- **PC23.** identify relevant rights and laws and use legal aids to fight against legal exploitation *Essential Digital Skills*

To be competent, the user/individual on the job must be able to:

- **PC24.** operate digital devices and use their features and applications securely and safely
- **PC25.** carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc.
- **PC26.** display responsible online behaviour while using various social media platforms









- PC27. create a personal email account, send and process received messages as per requirement
- **PC28.** carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications
- **PC29.** utilize virtual collaboration tools to work effectively

Entrepreneurship

To be competent, the user/individual on the job must be able to:

- **PC30.** identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research
- **PC31.** develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion
- **PC32.** identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity

Customer Service

To be competent, the user/individual on the job must be able to:

- PC33. identify different types of customers and ways to communicate with them
- PC34. identify and respond to customer requests and needs in a professional manner
- **PC35.** use appropriate tools to collect customer feedback
- **PC36.** follow appropriate hygiene and grooming standards

Getting ready for apprenticeship & Jobs

To be competent, the user/individual on the job must be able to:

- **PC37.** create a professional Curriculum vitae (Résumé)
- **PC38.** search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively
- **PC39.** apply to identified job openings using offline /online methods as per requirement
- **PC40.** answer questions politely, with clarity and confidence, during recruitment and selection
- **PC41.** identify apprenticeship opportunities and register for it as per guidelines and requirements

Knowledge and Understanding (KU)

The individual on the job needs to know and understand:

- **KU1.** need for employability skills and different learning and employability related portals
- **KU2.** various constitutional and personal values
- **KU3.** different environmentally sustainable practices and their importance
- **KU4.** Twenty first (21st) century skills and their importance
- **KU5.** how to use English language for effective verbal (face to face and telephonic) and written communication in formal and informal set up
- **KU6.** importance of career development and setting long- and short-term goals
- **KU7.** about effective communication
- **KU8.** POSH Act
- **KU9.** Gender sensitivity and inclusivity
- **KU10.** different types of financial institutes, products, and services









- **KU11.** components of salary and how to compute income and expenditure
- **KU12.** importance of maintaining safety and security in offline and online financial transactions
- KU13. different legal rights and laws
- **KU14.** different types of digital devices and the procedure to operate them safely and securely
- KU15. how to create and operate an e- mail account
- **KU16.** use applications such as word processors, spreadsheets etc.
- **KU17.** how to identify business opportunities
- **KU18.** types and needs of customers
- **KU19.** how to apply for a job and prepare for an interview
- **KU20.** apprenticeship scheme and the process of registering on apprenticeship portal

Generic Skills (GS)

User/individual on the job needs to know how to:

- **GS1.** read and write different types of documents/instructions/correspondence in English and other languages
- GS2. communicate effectively using appropriate language in formal and informal settings
- **GS3.** behave politely and appropriately with all to maintain effective work relationship
- **GS4.** how to work in a virtual mode, using various technological platforms
- **GS5.** perform calculations efficiently
- **GS6.** solve problems effectively
- **GS7.** pay attention to details
- GS8. manage time efficiently
- GS9. maintain hygiene and sanitization to avoid infection









Assessment Criteria

| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|-----------------|--------------------|------------------|---------------|
| Introduction to Employability Skills | 1 | 1 | - | - |
| PC1. understand the significance of employability skills in meeting the current job market requirement and future of work | - | - | - | - |
| PC2. identify and explore learning and employability relevant portals | - | - | - | - |
| PC3. research about the different industries, job market trends, latest skills required and the available opportunities | - | - | - | - |
| Constitutional values - Citizenship | 1 | 1 | - | - |
| PC4. recognize the significance of constitutional values, including civic rights and duties, citizenship, responsibility towards society etc. and personal values and ethics such as honesty, integrity, caring and respecting others, etc. | - | - | - | - |
| PC5. follow environmentally sustainable practices | - | - | - | - |
| Becoming a Professional in the 21st Century | 1 | 3 | - | - |
| PC6. recognize the significance of 21st Century Skills for employment | - | - | - | - |
| PC7. practice the 21st Century Skills such as Self-Awareness, Behaviour Skills, time management, critical and adaptive thinking, problem-solving, creative thinking, social and cultural awareness, emotional awareness, learning to learn for continuous learning etc. in personal and professional life | - | - | - | - |
| PC8. adopt a continuous learning mindset for personal and professional development | - | - | - | - |
| Basic English Skills | 3 | 4 | - | - |
| PC9. use basic English for everyday conversation in different contexts, in person and over the telephone | - | - | - | - |









| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|-----------------|--------------------|------------------|---------------|
| PC10. read and understand routine information, notes, instructions, mails, letters etc. written in English | - | - | - | - |
| PC11. write short messages, notes, letters, e-mails etc. in English | _ | - | - | - |
| Career Development & Goal Setting | 1 | 2 | - | - |
| PC12. identify career goals based on the skills, interests, knowledge, and personal attributes | - | - | - | - |
| PC13. prepare a career development plan with short- and long-term goals | - | - | - | - |
| Communication Skills | 2 | 2 | - | - |
| PC14. follow verbal and non-verbal communication etiquette while communicating in professional and public settings | - | - | - | - |
| PC15. use active listening techniques for effective communication | - | - | - | - |
| PC16. communicate in writing using appropriate style and format based on formal or informal requirements | - | - | - | - |
| PC17. work collaboratively with others in a team | - | - | - | - |
| Diversity & Inclusion | 1 | 1 | - | - |
| PC18. communicate and behave appropriately with all genders and PwD | - | - | - | - |
| PC19. escalate any issues related to sexual harassment at workplace according to POSH Act | - | - | - | - |
| Financial and Legal Literacy | 2 | 3 | - | - |
| PC20. identify and select reliable institutions for various financial products and services such as bank account, debit and credit cards, loans, insurance etc. | - | - | - | - |
| PC21. carry out offline and online financial transactions, safely and securely, using various methods and check the entries in the passbook | - | - | - | - |









| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|-----------------|--------------------|------------------|---------------|
| PC22. identify common components of salary and compute income, expenses, taxes, investments etc | - | - | - | - |
| PC23. identify relevant rights and laws and use legal aids to fight against legal exploitation | - | - | - | - |
| Essential Digital Skills | 3 | 5 | - | - |
| PC24. operate digital devices and use their features and applications securely and safely | - | - | - | - |
| PC25. carry out basic internet operations by connecting to the internet safely and securely, using the mobile data or other available networks through Bluetooth, Wi-Fi, etc. | - | - | - | - |
| PC26. display responsible online behaviour while using various social media platforms | - | - | - | - |
| PC27. create a personal email account, send and process received messages as per requirement | - | - | - | - |
| PC28. carry out basic procedures in documents, spreadsheets and presentations using respective and appropriate applications | - | - | - | - |
| PC29. utilize virtual collaboration tools to work effectively | - | - | - | - |
| Entrepreneurship | 2 | 3 | - | - |
| PC30. identify different types of Entrepreneurship and Enterprises and assess opportunities for potential business through research | - | - | - | - |
| PC31. develop a business plan and a work model, considering the 4Ps of Marketing Product, Price, Place and Promotion | - | - | - | - |
| PC32. identify sources of funding, anticipate, and mitigate any financial/ legal hurdles for the potential business opportunity | - | - | - | - |
| Customer Service | 1 | 2 | - | - |
| PC33. identify different types of customers and ways to communicate with them | - | - | - | - |









| Assessment Criteria for Outcomes | Theory Marks | Practical Marks | Project Marks | Viva Marks |
|--|-----------------|--------------------|------------------|---------------|
| PC34. identify and respond to customer requests and needs in a professional manner | - | - | - | - |
| PC35. use appropriate tools to collect customer feedback | - | - | - | - |
| PC36. follow appropriate hygiene and grooming standards | - | - | - | - |
| Getting ready for apprenticeship & Jobs | 2 | 3 | - | - |
| PC37. create a professional Curriculum vitae (Résumé) | - | - | - | - |
| PC38. search for suitable jobs using reliable offline and online sources such as Employment exchange, recruitment agencies, newspapers etc. and job portals, respectively | - | - | - | - |
| PC39. apply to identified job openings using offline /online methods as per requirement | - | - | - | - |
| PC40. answer questions politely, with clarity and confidence, during recruitment and selection | - | - | - | - |
| PC41. identify apprenticeship opportunities and register for it as per guidelines and requirements | - | - | - | - |
| NOS Total | 20 | 30 | - | - |









National Occupational Standards (NOS) Parameters

| NOS Code | DGT/VSQ/N0103 |
|---------------------|---------------------------------|
| NOS Name | Employability Skills (90 Hours) |
| Sector | Cross Sectoral |
| Sub-Sector | Professional Skills |
| Occupation | Employability |
| NSQF Level | 5 |
| Credits | 3 |
| Version | 1.0 |
| Last Reviewed Date | 08/05/2025 |
| Next Review Date | 08/05/2028 |
| NSQC Clearance Date | 08/05/2025 |

Assessment Guidelines and Assessment Weightage

Assessment Guidelines

- 1. Criteria for assessment for each Qualification Pack will be created by the Sector Skill Council.
- 2. Each Element/ Performance Criteria (PC) will be assigned marks proportional to its importance in NOS.
- 3. SSC will lay down proportion of marks for Theory and Skills Practical for each Element/ PC.
- 4. Individual NCVET recognised assessment agencies will prepare the theory and practical question papers
- 5. The assessments will be conducted by individual NCVET recognised assessment agencies as per the SOP.
- 6. Every learner/ candidate appearing for the assessment must possess the OJT completion certificate from the employer to undertake the assessments under this qualification.
- 7. The assessment for the theory will be conducted online and practical will be conducted offline on a digital assessment platform with comprehensive auditable trails.
- 8. Assessment will be conducted for all compulsory NOS, and where applicable, on the selected elective/option NOS/set of NOS.









- 9. To pass the Qualification Pack assessment, every trainee should score a minimum of 70% aggregate passing percentage recommended at Qualification Level.
- 10. In case of unsuccessful completion, the trainee may seek reassessment on the Qualification Pack.
- 11. For detailed guidelines SOP on assessments can be referred to on the RASCI website. https://www.rasci.in/StandardOperatingProcedureAssessments.php

Minimum Aggregate Passing % at QP Level: 70

(**Please note**: Every Trainee should score a minimum aggregate passing percentage as specified above, to successfully clear the Qualification Pack assessment.)

Assessment Weightage

Compulsory NOS

| National Occupational Standards | Theory Marks | Practical Marks | Project Marks | Viva Marks | Total Marks | Weightage |
|--|-----------------|--------------------|------------------|---------------|----------------|-----------|
| RAS/N0169.Integrate Data and Generate Reports | 40 | 60 | 0 | 0 | 100 | 20 |
| RAS/N0170.Analyze Customer Behavior and Personalize Marketing | 40 | 60 | 0 | 0 | 100 | 25 |
| RAS/N0171.Evaluate Financial Performance and Prepare Forecasts | 30 | 70 | 0 | 0 | 100 | 10 |
| RAS/N0172.Optimize Sales and Marketing Strategies | 40 | 60 | 0 | 0 | 100 | 12 |
| RAS/N0173.Manage Supply Chain and Optimize Inventory | 40 | 60 | 0 | 0 | 100 | 10 |
| RAS/N0174.Conduct Competitive Intelligence and Market Research | 40 | 60 | 0 | 0 | 100 | 10 |
| RAS/N0175.Data Analysis Using Tools and Technology Tools | 30 | 70 | 0 | 0 | 100 | 8 |
| DGT/VSQ/N0103.Employability Skills (90 Hours) | 20 | 30 | - | - | 50 | 5 |









| National Occupational | Theory | Practical | Project | Viva | Total | Weightage |
|-----------------------|--------|-----------|---------|-------|-------|-----------|
| Standards | Marks | Marks | Marks | Marks | Marks | |
| Total | 280 | 470 | - | - | 750 | 100 |









Acronyms

| NOS | National Occupational Standard(s) | |
|------|---|--|
| NSQF | National Skills Qualifications Framework | |
| QP | Qualifications Pack | |
| TVET | Technical and Vocational Education and Training | |









Glossary

| Sector | Sector is a conglomeration of different business operations having similar business and interests. It may also be defined as a distinct subset of the economy whose components share similar characteristics and interests. |
|---|--|
| Sub-sector | Sub-sector is derived from a further breakdown based on the characteristics and interests of its components. |
| Occupation | Occupation is a set of job roles, which perform similar/ related set of functions in an industry. |
| Job role | Job role defines a unique set of functions that together form a unique employment opportunity in an organisation. |
| Occupational Standards (OS) | OS specify the standards of performance an individual must achieve when carrying out a function in the workplace, together with the Knowledge and Understanding (KU) they need to meet that standard consistently. Occupational Standards are applicable both in the Indian and global contexts. |
| Performance Criteria (PC) | Performance Criteria (PC) are statements that together specify the standard of performance required when carrying out a task. |
| National Occupational Standards (NOS) | NOS are occupational standards which apply uniquely in the Indian context. |
| Qualifications Pack (QP) | QP comprises the set of OS, together with the educational, training and other criteria required to perform a job role. A QP is assigned a unique qualifications pack code. |
| Unit Code | Unit code is a unique identifier for an Occupational Standard, which is denoted by an 'N' |
| Unit Title | Unit title gives a clear overall statement about what the incumbent should be able to do. |
| Description | Description gives a short summary of the unit content. This would be helpful to anyone searching on a database to verify that this is the appropriate OS they are looking for. |
| Scope | Scope is a set of statements specifying the range of variables that an individual may have to deal with in carrying out the function which have a critical impact on quality of performance required. |









| Knowledge and Understanding (KU) | Knowledge and Understanding (KU) are statements which together specify the technical, generic, professional and organisational specific knowledge that an individual needs in order to perform to the required standard. |
|-------------------------------------|--|
| Organisational Context | Organisational context includes the way the organisation is structured and how it operates, including the extent of operative knowledge managers have of their relevant areas of responsibility. |
| Technical Knowledge | Technical knowledge is the specific knowledge needed to accomplish specific designated responsibilities. |
| Core Skills/ Generic Skills (GS) | Core skills or Generic Skills (GS) are a group of skills that are the key to learning and working in today's world. These skills are typically needed in any work environment in today's world. These skills are typically needed in any work environment. In the context of the OS, these include communication related skills that are applicable to most job roles. |
| Electives | Electives are NOS/set of NOS that are identified by the sector as contributive to specialization in a job role. There may be multiple electives within a QP for each specialized job role. Trainees must select at least one elective for the successful completion of a QP with Electives. |
| Options | Options are NOS/set of NOS that are identified by the sector as additional skills. There may be multiple options within a QP. It is not mandatory to select any of the options to complete a QP with Options. |