INFORMATICS INSTITUTE OF TECHNOLOGY

UNIVERSITY OF WESTMINSTER▦

University Of Westminster

MODULE: (2024) 5DATA004C.2 Data Science Project Lifecycle

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IIT Business School
Information Institute of
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University of Westminster, UK

Project Dashboard Development Report

Development Process

1. **Technology Stack Selection**
   - You used Streamlit for building the interactive dashboard
   - Integration with GitHub for version control
   - Connected your local VS Code environment to your GitHub repository using Git
2. **Data Organization & Extraction**
   - Created a structured database of 1929 projects across 8 sectors with 1440 distinct activities
   - Implemented data extraction capabilities to pull meaningful insights from the raw project data
3. **Dashboard Features Implementation**
   - Word cloud visualization for project activities
   - Tabular displays for top project activities with counts and percentages
   - Sector-specific activity breakdowns
   - Project sample data view
   - Projects overview statistics
   - Interactive sector selection and filtering
   - Multiple visualization types (bar charts, pie charts)
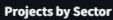   - Detailed project listings by selected sectors

Sample Data

	Serial No.	Name of the Project	Project Activity	Name of the Contact Person	Sector	Address Line.1	Address Lin
0	1	3 S FABRICATIONS (PVT) LTD.	STRAIN GAIGES & LOAD CELLS	MR. CHARITH - ACCOUNTANT	Manufacturing	VENUS MILLS	ETIYAWELA
1	2	3 S G CORPORATION (PVT) LTD.	PROCESS FINANCIAL DATA	BUDDIN GUNESEKARA- COUNTRY MANAGER	Knowledge Services	NO. 3-3/1, STATION ROAD	COLOMBO
2	3	4 EVER SKIN NATURALS (PVT) LTD.	PERSONAL CARE PRODUCTS	SAGARA FERNANDO	Manufacturing	# 287/2B,	STANLEY T
3	4	99 X TECHNOLOGY LTD.	COMPUTER SOFTWARE	MANO SEKARAM -	Knowledge Services	NO. 65 , LEVEL 2	WALUKARA
4	5	A B LEISURE (PVT) LTD. - EXP	LEISURE ACTIVITIES, TOURISM & RECREATION	RUSI PESTONJEE	Tourism & Leisure	NO. 498	GALLE RD.
5	6	A & C FASHIONS INTL. (PVT) LTD.	TRADING HOUSE	E M RATNAPALA - SECRETARY	Apparel	NO. 382/15	NAS SILVA
6	7	A & R MANUFACTURING (PVT) LTD.	MEDICAL AND SAFETY EQUIPMENTS & PRODUCTS	HENNING WEBER	Apparel	NO. 7A	CLASSEN P
7	8	A C L ELECTRIC (PVT) LTD	ELECTRICAL ACCESSORIES	ERANDA KAPUKOTUWA	Manufacturing	NO. 60	RODNEY ST
8	9	A E N PALM OIL PROCESSING (PVT) LTD.	ULTIVATE PALM TREES & PROC.OF PALM FRUITS FOR OIL	NEIL SOMASIRI - SENIOR ACCOUNTANT	Agriculture	MARAGAHADENIYA	BADURALIY
9	10	A M S INTL. (PVT) LTD.	GOLD/SILVER JEW.,GEMS,DIAMONDS	RAVINDRA FERNANDO	Manufacturing	185B, OBEYSEKARAPURA	RAJAGIRIYA

Projects Overview

Total Projects	Total Sectors	Total Activities
1929	8	1440

Projects by Sector

Top 10 Sectors by Number of Projects

Sector
- Manufacturing
- Apparel
- Utilities
- Tourism & Leisure
- Knowledge Services
- Agriculture
- Infrastructure
- Services

Projects Dashboard

A simple analysis of project data across different sectors and activities.

Sector Analysis

Select sectors to analyze:

Agriculture × Apparel × Infrastructure × Knowledge Servi... × Manufacturing ×

Projects by Sector

Distribution of Projects by Sector

Sector
Manufacturing
Apparel
Knowledge Services
Agriculture
Infrastructure

Pie chart values: 34.8%, 32.3%, 11.2%, 10.9%, 10.7%

Project Activities Word Cloud

Projects in Selected Sectors
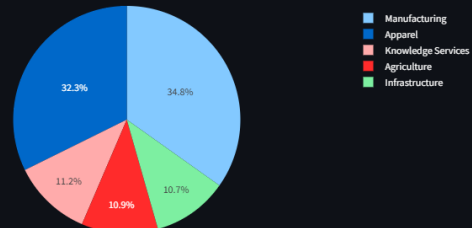
	Name of the Project	Sector	Project Activity
0	3 S FABRICATIONS (PVT) LTD.	Manufacturing	STRAIN GAIGES & LOAD CELLS
1	3 S G CORPORATION (PVT) LTD.	Knowledge Services	PROCESS FINANCIAL DATA
2	4 EVER SKIN NATURALS (PVT) LTD.	Manufacturing	PERSONAL CARE PRODUCTS
3	99 X TECHNOLOGY LTD.	Knowledge Services	COMPUTER SOFTWARE
5	A & C FASHIONS INTL. (PVT) LTD.	Apparel	TRADING HOUSE
6	A & R MANUFACTURING (PVT) LTD.	Apparel	MEDICAL AND SAFETY EQUIPMENTS & PRODUCTS
7	A C L ELECTRIC (PVT) LTD	Manufacturing	ELECTRICAL ACCESSORIES
8	A E N PALM OIL PROCESSING (PVT) LTD.	Agriculture	ULTIMATE PALM TREES & PROC.OF PALM FRUITS FOR OIL
9	A M S INTL. (PVT) LTD.	Manufacturing	GOLD/SILVER JEW.,GEMS,DIAMONDS
11	A S R VEGITABLE OIL COMPLEX (PVT) LTD.	Manufacturing	SOLVENT EXTRACTION PLANT TO PROD.RICE BRAN OIL&DE-OILED CAKE

Top Project Activities

	Activity	Count	Percentage
0	GARMENTS	164	8.5
1	COMPUTER SOFTWARE	22	1.14
2	DEVELOP SOFTWARE	20	1.04
3	WAREHOUSE	15	0.78
4	EXPORT TRADING HOUSE	15	0.78
5	APARTMENT COMPLEX	12	0.62
6	HOSPITAL	12	0.62
7	MIXED DEVELOPMENT PROJECT	10	0.52
8	OFFICE COMPLEX	10	0.52
9	GARMENTS - NON QUOTA	10	0.52

Top Activities by Sector

Manufacturing Apparel Utilities Tourism & Leisure Knowledge Services

	Activity	Count
0	VALUE ADDED TEA	8
1	SOLID TYRES	6
2	POLY BAGS	5
3	CEMENT	5
4	CORRUGATED CARTONS	4
5	PORCELAIN TABLEWARE	3
6	PLASTIC PRODUCTS	3
7	FURNITURE	3
8	GLASSWARE	2
9	STAINLESS STEEL SINKS	2

Key Dashboard Components

1. **Project Activities Word Cloud**
   - Visually represents the frequency of different project activities
   - Highlights dominant activities like "GARMENTS," "HYDRO," "POWER," "PLANT," and "HOTEL"
2. **Top Project Activities Table**
   - Shows "GARMENTS" as the most common activity (164 instances, 8.5%)
   - Software-related activities (COMPUTER SOFTWARE, DEVELOP SOFTWARE) appear prominently
3. **Sector-Specific Analysis**
   - Manufacturing sector breakdowns show "VALUE ADDED TEA" and "SOLID TYRES" as top activities
   - Multi-sector selection capability for comparative analysis
4. **Project Distribution Visualization**
   - Bar chart showing Manufacturing (34.8%) and Apparel (32.3%) as dominant sectors
   - Pie chart providing percentage distribution across selected sectors
5. **Sample Data View**
   - Detailed project information including contact persons and addresses
   - Organized by serial number for easy reference