

Graduation Project Proposal Form

1. Project

Information

- **Project Title:** Electronics Retailer Sales Analysis
- **Course/Track:** Data Analyst Specialist
- **Team Members:**
 1. Mohamad Gamal Ibrahim
 2. Muhammad Sameer
 3. Wafaey Mohammed
 4. Khaled Mohammed

2. Project Overview

- **Objective:**

The main objective is to analyze the sales data of an electronics retailer to identify key trends, customer purchasing behavior, and product performance. This project aims to provide actionable insights to improve sales strategies, optimize inventory, and enhance customer satisfaction.
- **Scope of Work:**

The project involves collecting and cleaning historical sales data, conducting exploratory data analysis (EDA), identifying key performance indicators (KPIs), and generating visual reports using Power BI. It will also include customer segmentation and predictive analysis to forecast sales trends.
- **Expected Outcomes:**
 - A comprehensive dashboard displaying sales performance by region, product, and time.
 - Customer segmentation based on purchasing patterns.
 - Sales trend predictions to assist in future decision-making.
 - A document inform leader all information to enhance understanding the insights.

3. Problem Statement

Electronics retailers often struggle with managing large volumes of sales data, which can make it difficult to identify sales trends and optimize operations. This project seeks to address these challenges by analyzing sales data to uncover insights that can drive better decision-making in inventory management, marketing strategies, and customer targeting.

4. Proposed Solution

- **Technologies Used:**
 - Python and SQL for data cleaning and analysis
 - Power BI for data visualization
 - Excel for data collection and preliminary analysis
 - Power Point for preparing a document.
- **System Architecture:**
 - Data collection from sales records, inventory, and customer databases.
 - Data processing and analysis using Python for cleaning, manipulation, and feature extraction.
 - Data visualization using Power BI for presenting insights and KPIs to stakeholders.

5. Resources Needed

- **Hardware/Software:**
 - Python (Anaconda, NumPy, Pandas, Matplotlib)
 - Power BI
 - SQL Server
 - Excel

6. Approval

- **Instructor/Advisor:** Ahmed Alaa
- **Signature:** Ahmed Alaa