

Graduation Project Proposal Form

1. Project Information

- **Project Title:** Data Analysis on Boston Crime Record
- **Course/Track:** Data Analyst specialist
- **Team Members:**
 1. Mariem Ahmed Elhoseny
 2. Mariem Hossam Mahmoud
 3. Omar Mohamed Elemary
 4. Rokaya Mahmoud Shamal
 5. Weaam Ahmed Abdelmoniem

2. Project Overview

- **Objective:**

Explore, analyze and visualize a dataset containing information on Crime Reporting in Boston using data analytics tools and techniques.
- **Scope of work:**

The Project will provide valuable insights into crime trends, analyze crime statistics, compare crime rates across different regions and identify trends in criminal activities from 2015 to 2018.
- **Expected Outcomes:**

The project aims to support evidence-based decision-making, enhance community safety, pave the way for targeted crime prevention interventions and resource allocation for crime prevention efforts.
- **Problem Statement:**

Many communities struggle to effectively prevent crime. However, police and law agencies face challenges in understanding the complex patterns and trends of crime instances. This lack of evidence-based decision-making hinders proactive crime prevention efforts. Our aim is to fill this gap by providing comprehensive insights that fulfill the demands of a safe society and eliminate crime incidents.
- **Methodology:**
 1. **Data Collection:** Gather and preprocess historical crime data from official sources, including details on crime types, locations, dates, and times.
 2. **Data Exploration:** Conduct exploratory data analysis to uncover patterns, trends, and correlations within the crime dataset.
 3. **Impact Assessment:** Evaluate the impact of implemented interventions through the analysis of crime rates, trends, and community feedback.

3. Proposed Solution

- **Technologies Used:**
 1. Excel for preparing data
 2. Python for data cleaning
 3. Tableau for visualization

4. Resources Needed

- **Hardware/Software:**
 1. Excel (Microsoft 365 Version)
 2. Python (Version 3)
 3. Tableau (Version 2024.2)

5. Approval

- **Instructor/Advisor:** Abdallah Kamal
- **Signature:** Abdallah Kamal