



Project Analysis

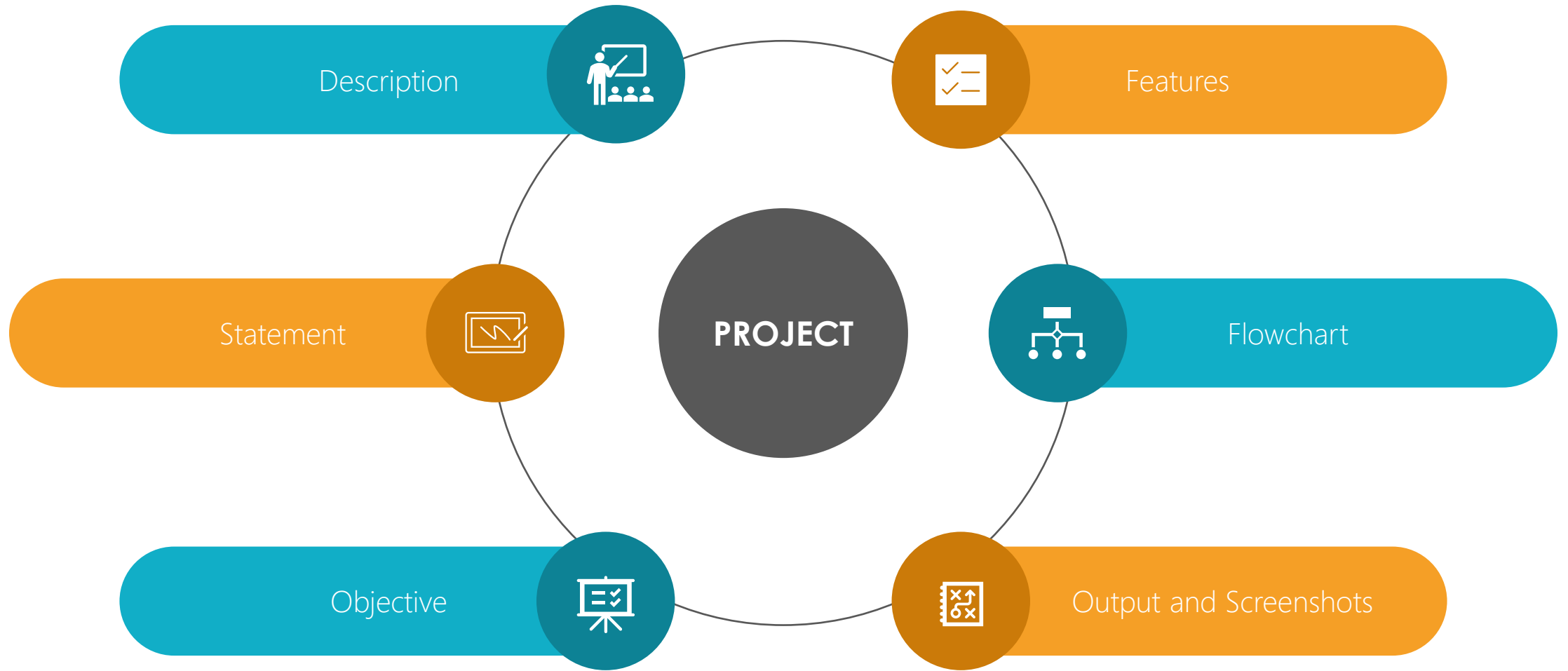
Student Profile Management System

by

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GROUP - 8

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Project Description

This project is designed as the final assessment for the Fundamental of Data Science course. It involves creating a basic student profile management system using Python, featuring a Graphical User Interface (GUI) to enable users to log in and access their respective dashboards. In case of login errors, the program screen will display an error message and prompt for re-login. Admin users can manipulate student data, while student users can view their extracurricular activities and examination grades along with their personal details. This project incorporates the implementation of Object-Oriented Programming (OOP), functions, file handling, modular programming, and exception handling. It aims to challenge and test our creativity, problem-solving abilities, and comprehension of the subject matter.

Statement of Project

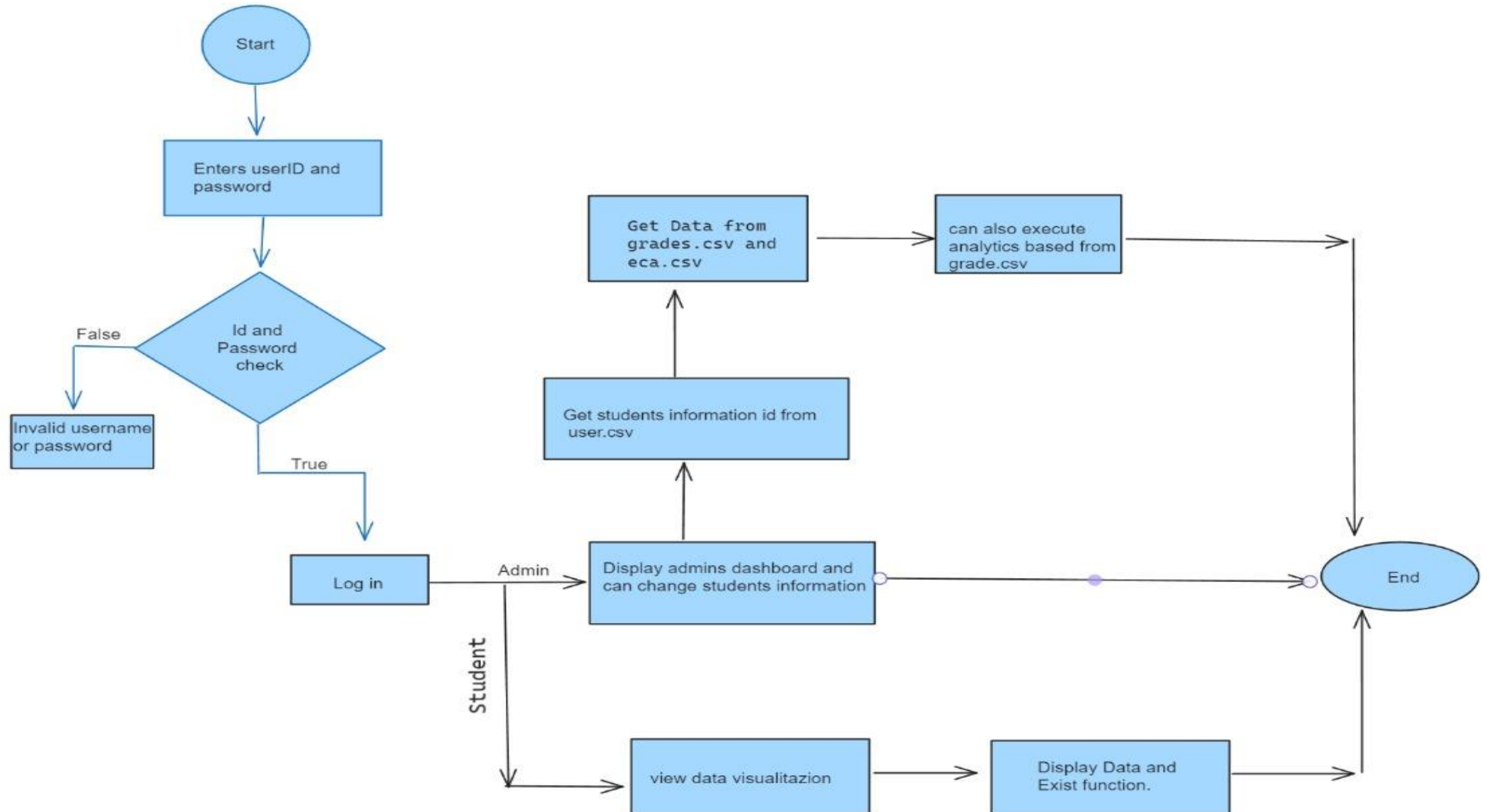
The task involves developing a basic student profile management system that handles student personal details, exam grades, and extracurricular activities over recent years. The system relies on four CSV files:

- 'users.csv' storing registered users' personal information and roles,
- 'grades.csv' stores the marks of registered users for five subjects.
- 'eca.csv' storing registered users' extracurricular activity details during their study period,
- 'passwords.csv' stores the passwords of each user.

Features

- **User Authentication:** The user is required to input their username and password to login and the system gives access as per their role
- **Role-Based Access Control:** The system consists of two roles student and admin. Each role has its own dashboard according to their need.
- **Student Dashboard:** Students can view their personal information, subject grades, and ECA details(read only access).
- **Admin Dashboard:** Admins have access to student information and can update student details, change and delete grades and ECA.
- **Unique ID:** The system generates unique id for both students and admin by using random strings.
- **Error Handling:** This Student Application Management system has robust error handling.
- **Visualization:** Visualizations of individual student marks and all together student's marks is done by using matplotlib.

Flowchart



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Conclusion

In summary, this project focuses on developing a student profile management system with user authentication. The system customizes features based on the user's role, providing students with a read-only dashboard and granting admins full access to modify, delete grades, ECA details, add new users, and their data. By extracting data from various CSV files, the application facilitates interaction with student information, grades, and extracurricular activities while implementing error handling.



Thank You

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