**Program Analysis and Flow Report**

**Project Title**: Student Placement Prediction App

**Deployment link:** [*https://student-placement-predictor-bsv2.onrender.com*](https://student-placement-predictor-bsv2.onrender.com)

**Date:** August 31,2025

**Project Team ID**: PTID-CYPD-JUL-25-24

**Project ID**: PYPR-1C

**Technology Stack**: Flask(python), SQLite, scikit-learn, Bootstrap, HTML/CSS (Glassmorphism),Git/Github

**Purpose of the project**

* Predict student placement outcomes(placed/not placed) based on academic and aptitude parameters.
* Provide career planning interventions and recommendations for students.
* Allow authenticated users to add, view, edit and delete placed student records.
* Give administrators control over users and ensure secure access.
* Enhance faculty/placement to offer career support and guidance with daily placement insightful quotes.
* Allow users to leave reviews after using the App.

**Main Components**

* Authentication & User Management
* Placement Prediction
* Database Layer (SQLite)
* Placement Management
* Intervention Notifications
* Daily Placement Insights
* UI/UX with Glassmorphism theme
* App Review

**Data Flow**

* User Authentication 🡪 Register/Login 🡪 Session created.
* Prediction Flow: Inputs(Fullname,CGPA,IQ,Profile) 🡪 validated🡪 model predicts 🡪 placed saved or recommendation shown.
* Placement Management Flow: Users view, edit, delete their placed students.
* Notification Flow: Daily insightful message on login.

**Analysis**

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| Strengths | Weaknesses/Areas for Improvement | Future Enhancement |
| Secure authentication  Persistent student management  Personalized interventions  Daily Placement Insights  UI (glassmorphism)  App review | Model lacks probability/confidence  Limited input features  No advanced role-based access  Static recommendations | Add analytics dashboard for user  Integrate job/internship APIs  Add faculty/mentor roles  Store placement test results  Improve ML model |

**Flow Diagram**

[User] 🡪 Login/Register 🡪 [Authentication System] 🡪 [Session Created] 🡪 [Daily Placement insight displayed] 🡫 [Prediction Form] 🡪 [Validation] 🡪 [ML Model] 🡫 Placed?-------No 🡪 Show Recommendations | Yes 🡫 Save Student 🡪 [Placed\_Students Table] 🡫 View/Edit/Delete 🡪[Manage Students Interface]