**📄 Student Management System – *Planning & Analysis Report* (Full English Version)**

**Project Title:** *Student Management System using Java*  
**Name:** [Your Name]  
**Roll Number:** [Your Roll Number]  
**Subject:** Java Programming  
**Submitted To:** [Instructor’s Name]  
**Date:** [Submission Date]  
**Institute:** [Your College Name]

**1. Introduction**

This project is a **console-based Student Management System** developed using the Java programming language. It allows users to perform basic operations such as adding, viewing, updating, and deleting student records. This system is designed to be simple, efficient, and user-friendly.

**2. Objective**

The main objective of this project is to create a basic Java application that demonstrates the use of **Object-Oriented Programming (OOP)** concepts and basic data structures to manage student information effectively.

**3. Planning**

| **Phase** | **Description** |
| --- | --- |
| Requirement Study | Identify the need to manage student records using add, view, update, delete. |
| System Design | Design a Student class and use a List to store student data. |
| Implementation | Implement the functionalities using Java classes, loops, and conditions. |
| Testing | Test with different inputs to ensure correctness. |
| Finalization | Finalize code and documentation for submission. |

**4. Analysis**

**➤ Input:**

* Student Name (String)
* Roll Number (Integer)
* Grade (String)

**➤ Processing:**

* Store student data in a list using Student objects
* Perform operations like insert, display, update, delete
* Take user input and respond through a menu system

**➤ Output:**

* Display of student records
* Confirmation messages like “Student added”, “Student updated”, etc.

**5. Features / Functionalities**

* Add a new student
* Display all student records
* Update student details using roll number
* Delete a student record
* Exit the application

**6. Tools & Technologies Used**

* Programming Language: Java
* Development Environment: IntelliJ IDEA / Eclipse / Notepad++
* Data Structure: ArrayList (Dynamic List)

**7. Advantages**

* Simple and beginner-friendly Java project
* Easy to understand and modify
* Demonstrates basic OOP and list handling in Java
* Can be enhanced later with file handling or database integration

**8. Limitations**

* Data is not stored permanently (lost after program ends)
* No GUI (Graphical User Interface)

**9. Conclusion**

This project showcases how Java can be used to build a functional Student Management System using basic concepts. It demonstrates the ability to design, develop, and test a small-scale software system. In the future, this system can be extended with database support and a graphical interface.

**10. (Optional) Screenshots**

You may attach 1–2 screenshots showing the program running in the console.

**✅ What to do now?**

1. Copy this entire content into **Microsoft Word**
2. Replace placeholders like [Your Name], [Roll Number], etc.
3. Save the file as:

CopyEdit

Student\_Management\_Planning\_Report.docx

1. Submit it with your Java file

💡 **OR**, you can give me:

* Your **name**
* **Roll number**
* Date (or I’ll use today’s)
* Teacher or subject name (optional)