

Project Requirements and Objectives

Project Requirements:

Functional Requirements:

- The system should allow adding new students with names and IDs.
- The system should allow assigning grades for different subjects to each student.
- The system should calculate the average grade for each student.
- The system should display all student records with their grades.
- The system should return to the main menu after each operation until the user chooses to exit.

Non-Functional Requirements:

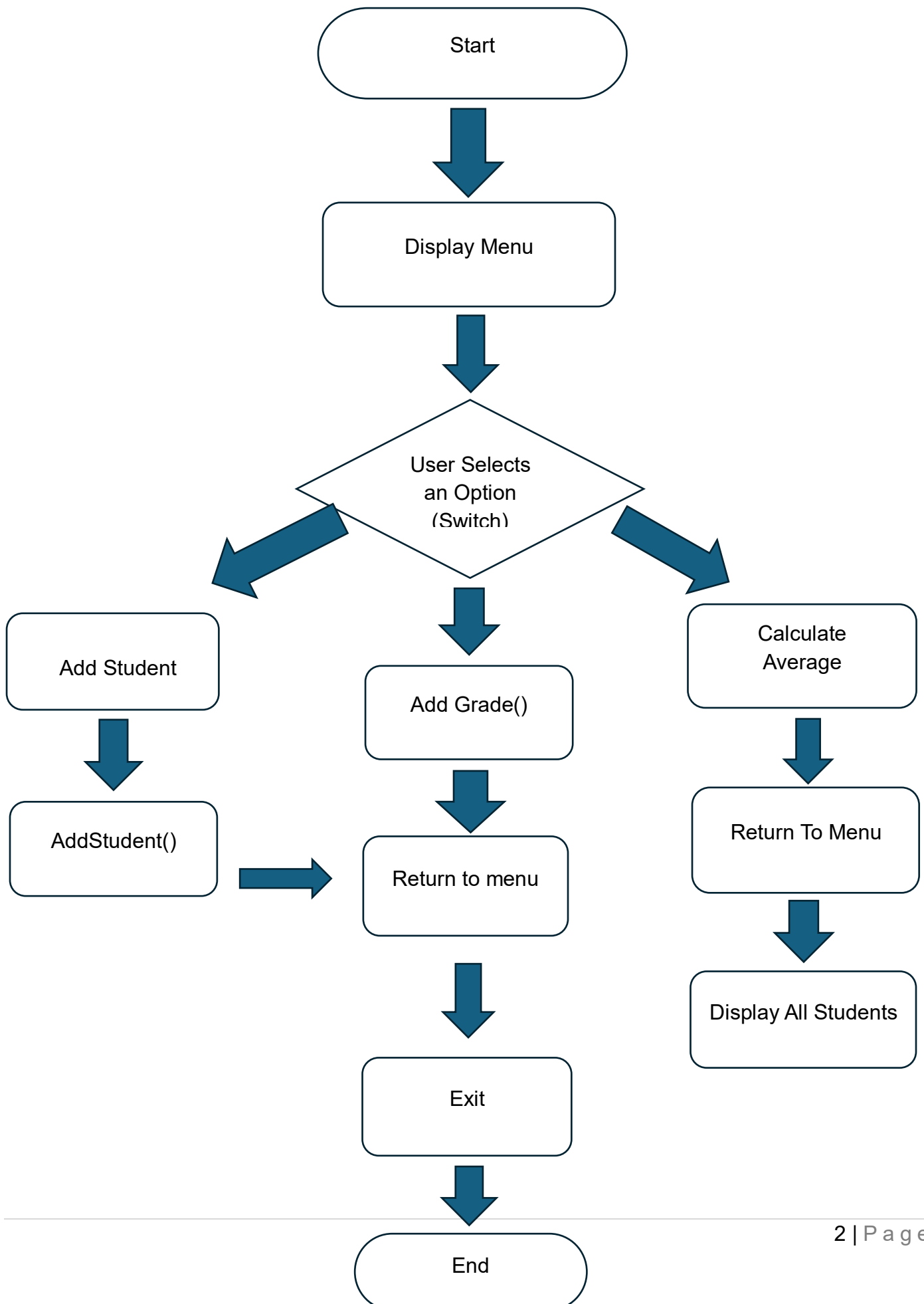
- The system should be user-friendly.
- The system should validate user inputs to ensure correct data is entered.
- The system should provide clear menu options and feedback.

Project Objectives:

- Develop a console-based **Student Grade Management System** using C#.
- Utilize **control structures** like if-else and switch statements.
- Apply **loops** like for, foreach, and while to manage data flow.
- Create and call **methods** to structure and organize the application.
- Provide users with a simple and effective interface to manage student data.

Student Grade Management System – Design

Flowchart



Task Breakdown Table:

Task	Code Component
Display Menu	while loop
Handle User Choices	switch statement
Add Student	AddStudent() method
Add Grade	AddGrade() method
Calculate Average Grade	CalculateAverage() method
Display All Students	DisplayStudents() method
Input Validation	if-else conditions
Calculate Sum of Grades	foreach loop
Iterate Through Students	foreach loop

Conclusion:

This document outlines the planning and design phase of the Student Grade Management System, including the system's requirements, flowchart, and task breakdown. The next step is to implement the code using C#