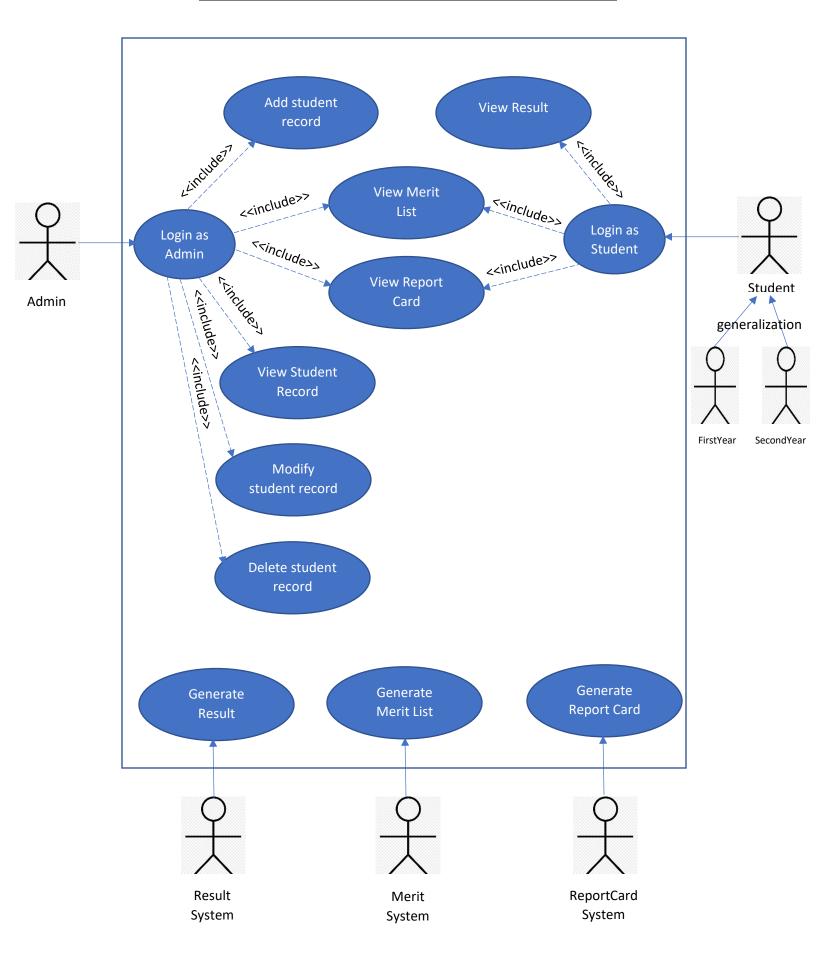
### **Student Report Card System USECASE**



### **Student Report Card System Class Diagram**

#### Student

- # name: string
- # father\_name: string
- # date\_of\_birth: string
- # address: string
- # contact number: string
- + Student()
- + ~Student()
- + setters()
- + getters()
- + ViewResult(): virtual
- void

#### Result

- TotalSubjects: int
- ObtainedMarks: float
- TotalMarks: float
- TotalPercentage: float
- TotalGrade: string
- + Result()
- + ~Result()
- + setter()
- + getter()
- + CalculateTotalMarks(): void
- + CalculatePercentage(): void
- + CalculateGrade(): void
- + ViewResult(): void

#### Merit

- + Merit()
- + ~Merit()
- + ReadRecord(): void
- + FirstYear\_Merit(): void
- + SecondYear\_Merit(): void
- + Aggregate\_Merit(): void

#### FirstYear

- # Enrollment: string
- # Roll\_no\_I: string
- # MarksInMaths\_I: float
- # MarksInPhysics I: float
- # MarksInChemistry\_I: float
- # MarksInUrdu\_I: float
- # MarksInEnglish\_I: float
- # MarksInIslamiat: float
- # TotalSubjects\_I: int
- # ObtainedMarks I:float
- # TotalMarks\_I: float
- # Percentage\_I: float
- # Grade I: string
- + FirstYear()
- + ~FirstYear()
- + setters()
- + getters()
- + CalculateTotalMarks(): void
- + CalculatePercentage(): void
- + CalculateGrade(): void
- + ViewResult(): void

#### **Admin**

- + Admin()
- + ~Admin()
- + Add Student Record(): void
- + Show\_Student\_Record(): void
- + Modify Student Record(): void
- + Delete\_Student\_Record(): void

#### ReportCard

- + ReportCard()
- + ~ReportCard()
- + ReadRecord(): void
- + FirstYear\_ReportCard(): void
- + Aggregate\_ReportCard(): void

#### SecondYear

- # Roll\_no\_II: string
- # MarksInMaths II: float
- # MarksInPhysics\_II: float
- # MarksInChemistry II: float
- # MarksInUrdu\_II: float
- # MarksInEnglish\_II: float
- # MarksInPakistanStd: float
- # TotalSubjects II: int
- # ObtainedMarks\_I: float
- # TotalMarks\_II: float
- # Percentage\_II: float
- # Grade II: string
- + SecondYear()
- + ~SecondYear()
- + setters()
- + getters()
- + CalculateTotalMarks(): void
- + CalculatePercentage(): void
- + CalculateGrade(): void
- + ViewResult(): void

#### Menu

- + Menu()
- + ~Menu()
- + Intro Display(): void
- + Exit\_Display(): void
- + Admin\_Login(): void
- + Student\_Login(): void
- + Admin Login Display(): void
- + Student\_Login\_Display(): void
- + Admin\_Display(): void
- + Student\_Display(): void

#### Student

- # name: string
- # father\_name: string # date\_of\_birth: string
- # address: string
- # contact number: string
- + Student()
- + ~Student()
- + setters()
- + getters()
- + ViewResult(): virtual void

### FirstYear

- # Enrollment: string
- # Roll no 1: string
- # MarksInMaths\_I: float
- # MarksInPhysics\_I: float
- # MarksInChemistry I: float
- # MarksInUrdu\_I: float
- # MarksInEnglish\_I: float
- # MarksInIslamiat: float
- # TotalSubjects\_I: int
- # ObtainedMarks I:float
- # TotalMarks I: float
- # Percentage I: float
- # Grade 1: string
- + FirstYear()
- + ~FirstYear()
- + setters()
- + getters()
- + CalculateTotalMarks(): void
- + CalculatePercentage(): void
- + CalculateGrade(): void
- + ViewResult(): void

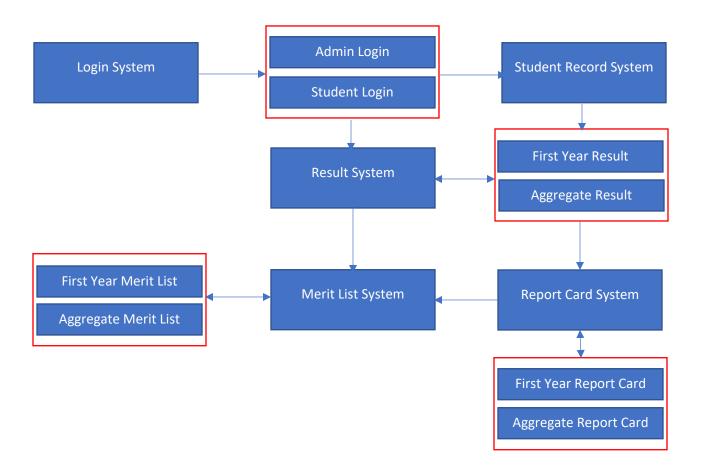
SecondYear

- # Roll no II: string
- # MarksInMaths\_II: float
- # MarksInPhysics\_II: float
- # MarksInChemistry II: float
- # MarksInUrdu\_II: float
- # MarksInEnglish II: float
- # MarksInPakistanStd: float
- # TotalSubjects II: int
- # ObtainedMarks\_I: float
- # TotalMarks\_II: float
- # Percentage\_II: float
- # Grade\_II: string
- + SecondYear()
- + ~SecondYear()
- + setters()
- + getters()
- + CalculateTotalMarks(): void
- + CalculatePercentage(): void
- + CalculateGrade(): void
- + ViewResult(): void

#### Result

- TotalSubjects: int
- ObtainedMarks: float
- TotalMarks: float
- TotalPercentage: float
- TotalGrade: string
- + Result()
- + ~Result()
- + setter()
- + getter()
- + CalculateTotalMarks(): void
- + CalculatePercentage(): void
- + CalculateGrade(): void
- + ViewResult(): void

## **Student Report Card System Block Diagram**



# **Student Report Card System Test Cases**

Test case S.no	Feature title	Test Case Description	Test Data	Expected Result	Actual Result	Pass/Fail
1	Admin login	Check admin login with valid password	admin	Admin Login should be successful displaying admin portal.	Login successful, displayed admin portal.	Pass
2	Admin login	Check admin login with invalid password	123/ abc / student etc.	Should Display incorrect password message.	Displayed incorrect password message.	Pass
3	Student login	Check student login with valid enrollment number from EnrollmentPassword file	Inputting any enrollment number present in enrollment password file i.e. e1, e2 etc.	Student Login should be successful displaying student portal.	Login successful, displayed student portal.	Pass
4	Student Login	Check student login with invalid enrollment number (enrollment number not present in EnrollmentPassword file)	Inputting any enrollment number not present in file i.e. 123/ r1 / r2 etc.	Should display incorrect enrollment number message.	Displayed incorrect enrollment number message.	Pass
5	Add Student Record	While adding marks in student record, validate the input marks for 100 marks subjects	101 / 115 / 200 / -1 / -10	Should display input correct marks in range of (0-100) message.	Displayed input marks in range (0-100) message.	Pass
6	Add Student Record	While adding marks in student record, validate the input marks for 50 marks subjects	51 / 80 / 100 / -1 / -50 / -48	Should display input correct marks in range of (0-50) message.	Displayed input marks in range (0-50) message.	Pass
7	Show Student Record	Search for student record with valid enrollment number present in StudentDetails file and display record if present	Inputting any enrollment number present in file i.e. e1 / e2 etc.	Should display student record for enrollment provided.	Displayed student record.	Pass
8	Show Student Record	Search for student record with invalid enrollment number (enrollment number not present in StudentDetails file) and display record if present	Inputting any enrollment number not present in file i.e. 123 / r1 etc.	Should display message that no record found for such enrollment provided.	Displayed no record found message.	Pass
9	Modify Student Record	Search for student record with valid enrollment number present in StudentDetails file and if present ask for updation information.	Inputting any enrollment number present in file i.e. e1 / e2 / e6 etc.	Should display message that record found, display the record and ask for updation in it	Displayed the student record, asked the user to update anything from it.	Pass

10	Modify	Search for student record	Innutting and	Chould display	Displayed as	Pass
10	Modify Student	with invalid enrollment	Inputting any enrollment	Should display	Displayed no record found	rdSS
			number not	message that no record found for		
	Record	number (enrollment			message.	
		number not present in	present in file	such enrollment		
		StudentDetails file) and if	i.e. 123 / r1 / r7	provided and hence		
		present ask for updation	etc.	cannot update.		
		information.				_
11	Delete Student	Search for student record	Inputting any	Should display	Displayed the	Pass
	Record	with valid enrollment	enrollment	message that	record,	
		number present in	number present	record found,	confirmed from	
		StudentDetails file and if	in file	display the record	user if user want	
		present confirm from user	i.e. e1 / e2 / e5	and confirm from	to delete it or	
		to delete it or not.	etc.	user if user want to	not.	
				delete it or not.		
12	Delete Student	Search for student record	Inputting any	Should display	Displayed the no	Pass
	Record	with invalid enrollment	enrollment	message that no	record found	
		number (enrollment	number not	record found for	message.	
		number not present in	present in file	such enrollment		
		StudentDetails file) and if	i.e. 456 / r5 etc.	provided and hence		
		present confirm from user		cannot delete.		
		to delete it or not.				
13	Generate/View	Search for student record	Inputting any	Should Generate	Generated and	Pass
	Report Card	with valid enrollment	enrollment	and display the	displayed the	
		number present in	number present	report card for	report card for	
		StudentDetails file and if	in file	enrollment	enrollment	
		present generate/ view	i.e. e1 / e2 / e3	provided.	provided.	
		report card.	etc.			
14	Generate/View	Search for student record	Inputting any	Should display	Displayed the no	Pass
	Report Card	with invalid enrollment	enrollment	message that no	record found	
		number (enrollment	number not	record found.	message.	
		number not present in	present in file			
		StudentDetails file) and if	i.e. 123 / r1 / r2			
		present generate/ view	etc.			
		report card.				