

Grade Book OUTPUT -

Your choices are:

1. S - Set up for new semester
2. A - Add Student
3. P - Record programming assignment score for all students
4. T - Record test score for all students
5. F - Record Final exam score for all students
6. C - Change a grade for a particular student.
7. G - Calculate final score for all students
8. O - Output the grade data
9. Q - Quit

Enter your command: **S**

Enter Semester Id: 1

Enter number of Assignments: 3

Enter each Assignments Weight: 30

Enter number of Tests: 3

Enter each Tests Weight: 40

Enter number of Final Exams: 1

Enter Final Exams Weight: 30

//Validating Number of Assignments to check range between 0 to 6.

Enter your command: **S**

Enter Semester Id: 2

Enter number of Assignments: 7

**** Exception occurred**

Number of Assignments should be between 0 to 6.

//Validating Number of Tests to check range between 0 to 4.

Enter your command: S

Enter Semester Id: 2

Enter number of Assignments: 4

Enter each Assignments Weight: 30

Enter number of Tests: 5

**** Exception occurred**

Number of Tests should be between 0 to 4.

//Validating Number of Final Exams to check range between 0 to 1.

Enter your command: S

Enter Semester Id: 2

Enter number of Assignments: 3

Enter each Assignments Weight: 30

Enter number of Tests: 2

Enter each Tests Weight: 40

Enter number of Final Exams: 2

**** Exception occurred**

Number of Final Exams should be between 0 to 1.

Storing Semester Data in **Policy.Dat** in below Format -

semester id,no_pas,w_pas,no_tests,w_tests,no_fe,w_fe

1(Semester Id),3(no of assignments),30(weight of assignments),3(no of tests),40(weight of tests),1(no of final exam),30(weight of final exams)

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Enter your command: **A**

Enter Student ID: 1001

Enter Student first name: John

Enter Student last name: Smith

//Checking validations for Student ID

Enter your command: **A**

Enter Student ID: 19568

**** Exception occurred**

Student Id should be between 0 to 9999.

//Checking validations for Student's Name

Enter your command: **A**

Enter Student ID: 1002

Enter Student first name: santhi sree nagalla 1002

**** Exception occurred**

First Name cannot exceed 20 characters.

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Enter your command: **P**

Enter Programming Assignment id: **1**

Enter score for 'Smith' with id '1001': 90

Enter your command: **P**

Enter Programming Assignment id: **2**

Enter score for 'Smith' with id '1001': 95

Enter your command: **P**

Enter Programming Assignment id: **3**

Enter score for 'Smith' with id '1001': 94

//Checking validations for Assignments if user tries to enter more than a limit.

Enter your command: **P**

Enter Programming Assignment id: **4**

**** Exception occurred**

Programming Assignment id is not valid

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9. Q – Quit

Enter your command: **T**

Enter Test id: 1

Enter score for 'Smith' with id '1001': 85

Enter your command: **T**

Enter Test id: 2

Enter score for 'Smith' with id '1001': 90

Enter your command: **T**

Enter Test id: 3

Enter score for 'Smith' with id '1001': 95

//Checking validations for Tests if user tries to enter more than a limit.

Enter your command: **T**

Enter Test id: 4

**** Exception occurred**

Test id is not valid

Your choices are:

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Enter your command: **F**

Enter score for 'Smith' with id '1001': 95

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Enter your command: **C**

Enter student id to change grade: 1001

Please enter type of score to change (P - Programming Assignment, T - Test, F - Final Score): F

Enter Final Exam id: 1

Enter new score: 96

//Checking validations if user tries to change grade for non-registered student.

Enter your command: **C**

Enter student id to change grade: 1002

**** Exception occurred**

Student id not found

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Enter your command: **G**

Grades will calculate in this Command

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7. G - Calculate final score for all students
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9. Q - Quit

Enter your command: **O**

Output will be saved in **Grades.out** file in below format.

Name=John Smith, Id=1001, Assignment Score(s)=[90,95,94], Test Score(s)=[85,90,95], Final Exam Score(s)=[96], Final Score=92.7

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9. Q - Quit

Enter your command: **Q**

Program will come out of the execution if user enter Q Command.

Students scores will be saved in **Grades.dat** in below format.

student id,semester id,assessment type,assessment id,score

1001,1,P,1,90

1001,1,P,2,95

1001,1,P,3,94

1001,1,T,1,85

1001,1,T,2,90

1001,1,T,3,95

1001,1,F,1,96

Students Information and grade will be saved in **students.dat** file in below format.

student id,firstname,lastname,grade

1001,John,Smith,92.7