Class name: TuitionManagerController
Method signature: protected void printByProfile() //print student in Roster sorted by profile

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should indicate when there are no students in the roster.	● Nothing	Notifies that student roster is empty
2	This method should output a list of students who are currently in the roster.	● Create an instance of Student with name "John Doe" ● Add student to the roster	Prints roster list consisting of John Doe

Class name: TuitionManagerController
Method signature: protected void printBySchool() //print student in Roster sorted by school

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should indicate if there are no students in the roster	● Nothing	Notifies that student roster is empty
2	This method should output a list of students by schools in alphabetical order	● In Roster tab, select "Load from File" to add list of students to roster ● In Print tab, select Roster >> "Print by School"	List of all students in roster grouped by school

Class name: TuitionManagerController
Method signature: protected void printByStanding() //print student in Roster sorted by standing

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should indicate if there are no students in the roster	● Nothing	Notifies that student roster is empty
2	This method should output a list of students in alphabetical order by standing/grade	● In Roster tab, select "Load from File" to add list of students to roster ● In Print tab, select Roster	List of all students in roster grouped by standing

		>> "Print by Standing"	

Class name: TuitionManagerController
Method signature: protected void printSchoolRBS() //print students in Roster in RBS

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should indicate if there are no students in the roster	● Nothing	Notifies that student roster is empty
2	This method should output a list of all students in roster at selected school (RBS)	● In Roster tab, select "Load from File" to add students ● In Print tab, select School >> RBS	All students in RBS, in alphabetical order by profile

Class name: TuitionManagerController
Method signature: protected void printSchoolSAS() //print students in Roster in SAS

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should indicate if there are no students in the roster	● Nothing	Notifies that student roster is empty
2	This method should output a list of all students in roster at selected school (SAS)	● In Roster tab, select "Load from File" to add students ● In Print tab, select School >> SAS	All students in SAS, in alphabetical order by profile

Class name: TuitionManagerController
Method signature: protected void printSchoolSCI() //print students in Roster in SC&I

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should indicate if there are no students in the roster	● Nothing	Notifies that student roster is empty
2	This method should output a list	● In Roster tab, select "Load	All students in

| | of all students in roster at selected school (SC&I) | from File" to add students
● In Print tab, select School >> SC&I | SC&I, in alphabetical order by profile |

Class name: TuitionManagerController
Method signature: protected void printSchoolSOE() //print students in Roster in SOE

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should indicate if there are no students in the roster	● Nothing	Notifies that student roster is empty
2	This method should output a list of all students in roster at selected school (SOE)	● In Roster tab, select "Load from File" to add students ● In Print tab, select School >> SOE	All students in SOE, in alphabetical order by profile

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Class name: TuitionManagerController
Method signature: protected void printEnrollment() //print students enrolled sorted by profile

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should indicate if there are no students in the roster	● Nothing	Notifies that student roster is empty
2	This method should indicate if there are no students currently enrolled.	● In Roster tab, select "Load from File" to add students ● In Print tab, select Enrollment >> "Print Enrolled Student"	Notifies that enrollment is empty
3	This method should print students in alphabetical order by profile	● Create an instance of Student with name "John Doe" ● Add student to roster ● Add student to enrollment	Prints roster list consisting of John Doe

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Class name: TuitionManagerController
Method signature: protected void printTuition() //print students enrolled sorted by profile with tuition

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should indicate if there are no students in the roster	● Nothing	Notifies that student roster is empty
2	This method should indicate if there are no students currently enrolled.	● In Roster tab, select "Load from File" to add students ● In Print tab, select Enrollment >> "Print Enrolled Student"	Notifies that enrollment is empty
3	This method should print students in alphabetical order by profile, along with tuition due	● Create an instance of Student with name "John Doe" ● Add student to roster ● Add student to enrollment	Prints John Doe and their tuition cost

Class name: TuitionManagerController
Method signature: protected void onSemesterEndButtonClick() //ends the semester, adds the enrolled students' credits to their completed credits and prints students with 120+ completed credits

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should indicate if there are no students currently enrolled.	● In Print tab, select Enrollment >> "Print Enrolled Student" Or ● In Roster tab, select "Load from File" to add students ● In Print tab, select Enrollment >> "Print Enrolled Student"	Notifies that enrollment is empty
2	This method should print a list of students with over 120+ credits after enrolled semester	● Create an instance of Student with name "John Undergrad" with completed+current credits < 120 ● Create an instance of Student with name "John Grad" with completed+current credits >= 120 ● Add both students to roster ● Enroll both students	Prints profile details for John Grad

Class name: TuitionManagerController
Method signature: protected void onChangeScholarshipButtonClick() //updates the student's scholarship

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should indicate if a student is not eligible for a scholarship based on status	● Any instance of a student who is not a full time resident ● Input: an instance of Student and check Non-Resident option	Notifies that student is not eligible for scholarship
2	This method should update a student's scholarship and print upon success	● Any instance of a student who is a full-time resident with valid amount ● Input: an instance of Student with Resident option and 10,000 amount	Prints profile of student with notice that scholarship amount updated
3	This method should indicate if a student is not eligible for a scholarship based on invalid integer amount	● Any instance of a full-time resident student with scholarship amount <0 or >10000 ● Input: an instance of Student with Resident option and 0 amount	"0: invalid amount."
4	This method should indicate if a student is not eligible for a scholarship based on invalid integer amount	● Any instance of a full-time resident student with scholarship amount <0 or >10000 ● Input: an instance of Student with Resident option and 10005 amount	"10005: invalid amount."
5	This method should indicate if a student is not eligible for a scholarship based on invalid amount	● Any instance of a full-time resident student with scholarship amount that cannot be parsed to an int ● Input: an instance of Student with Resident option and "xxx" amount	"Amount is not an integer."
6	This method should indicate if required information is missing	● Any instance if the first name, last name, date of birth, or scholarship	"Missing data to change scholarship.

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
		amount is missing ● Input: Fill in first name, last name, date of birth but leave scholarship amount blank	Please check first/last name, date of birth, and scholarship value."
7	This method should indicate if the submitted date of birth is younger than 16	● Create any instance of date less that 16 years from today ● Input: "3/7/2020"	"DOB invalid: 3/7/2020 younger than 16 years old."
8	This method should indicate if the submitted student is not currently enrolled	● Any instance of a student who is not currently enrolled ● Input: student John Doe 10/24/2001	Notifies that the student requested is not currently enrolled
9	This method should indicate if the student is a resident but is also part time	● Any instance of a resident student with less than 12 credits ● Input: John Doe 1/2/2007	Notifies that part time students are not eligible for scholarships
10	This method should indicate if there is white space inside of any submitted text space	● Any instance where white space is inside of submitted text ● Input: first name as "C arl"	"First name, last name, and scholarship cannot contain spaces."
11	This method should indicate if there is white space inside of any submitted text space	● Any instance where white space is inside of submitted text ● Input: last name as "Bro wn"	"First name, last name, and scholarship cannot contain spaces."
12	This method should indicate if there is white space inside of any submitted text space	● Any instance where white space is inside of submitted text ● Input: scholarship value as "9 000"	"First name, last name, and scholarship cannot contain spaces."

Class name: TuitionManagerController			
Method signature: protected void onEnrollButton() //adds student to enrollment object			
Test Case #	**Requirement**	**Test Description and Input Data**	**Expected Result/Output**
1	This method should indicate if a	● Fill out student in	Notifies that

	student is not in the roster	Enrollment tab and click Enroll button	student can not be added and is not in roster
2	This method should add a student to enrollment and print upon success	● Create an instance of Student and add to roster ● With same profile details, add student to enrollment	Should print profile of enrolled student with credit load
3	This method should indicate if required information is missing	● Any instance if the first name, last name, date of birth or credit amount is missing ● Input: Fill in first name, last name, date of birth but leave credit amount blank	"Missing data to enroll student. Please check first/last name, date of birth, or credit load."
4	This method should indicate if a Resident has an invalid amount of credits	● Any instance of a resident with <3 or >24 credits ● Input: resident with 2 credits	"Can not enroll: Invalid credit load"
5	This method should indicate if a Resident has an invalid amount of credits	● Any instance of a resident with <3 or >24 credits ● Input: resident with 25 credits	"Can not enroll: Invalid credit load"
6	This method should indicate if a NonResident has an invalid amount of credits	● Any instance of a nonresident with <3 or >24 credits ● Input: resident with 2 credits	"Can not enroll: Invalid credit load"
7	This method should indicate if a NonResident has an invalid amount of credits	● Any instance of a nonresident with <3 or >24 credits ● Input: resident with 25 credits	"Can not enroll: Invalid credit load"
8	This method should indicate if a Tristate student has an invalid amount of credits	● Any instance of a nonresident with <3 or >24 credits ● Input: resident with 25 credits	"Can not enroll: Invalid credit load"
9	This method should indicate if a Tristate student has an invalid amount of credits	● Any instance of a nonresident with <3 or >24 credits ● Input: resident with 2 credits	"Can not enroll: Invalid credit load"

10	This method should indicate if a International Study Abroad student has an invalid amount of credits	• Any instance of a study abroad with >12 credits • Input: resident with 14 credits	"Can not enroll: Invalid credit load"
11	This method should indicate if a International (not Study Abroad) student has an invalid amount of credits	• Any instance of an international with <12 or >24 credits • Input: resident with 25 credits	"Can not enroll: Invalid credit load"
12	This method should indicate if a International (not Study Abroad) student has an invalid amount of credits	• Any instance of an international with <12 or >24 credits • Input: resident with 10 credits	"Can not enroll: Invalid credit load"
13	This method should indicate if the credit value is not an integer	• Any instance of a student with a non-integer amount of credits • Input: resident with "xxx" credits	"Current credit load invalid: not an integer!"
14	This method should indicate if the credit value is negative	• Any instance of a student with a negative amount of credits • Input: resident with -1 credits	"Current credit load invalid: cannot be negative!"
15	This method should indicate if the submitted date of birth is younger than 16	• Create any instance of date less that 16 years from today • Input: "3/7/2020"	"DOB invalid: 3/7/2020 younger than 16 years old."
16	This method should indicate if there is white space inside of any submitted text space	• Any instance where white space is inside of submitted text • Input: first name as "J ohn"	"First name, last name, and credits cannot contain spaces."
17	This method should indicate if there is white space inside of any submitted text space	• Any instance where white space is inside of submitted text • Input: last name as "Do e"	"First name, last name, and credits cannot contain spaces."
18	This method should indicate if there is white space inside of any submitted text space	• Any instance where white space is inside of submitted text • Input: credit value as "2 3"	"First name, last name, and credits cannot contain spaces."

Class name: TuitionManagerController
Method signature: protected void onDropButtonClick() //removes student from enrollment object

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should remove a specified student from enrollment and print upon success	● Create an instance of Student and add to roster ● Add same student to enrollment ● With same profile details, remove from enrollment	Should print profile of student dropped
2	This method should indicate if a student is not found in the enrollment	● With new profile details, remove a new student from enrollment	Notifies that student is not enrolled
3	This method should indicate if required information is missing	● Any instance where first name, last name, or date of birth is missing ● Input: Fill in first name and date of birth but leave last name blank	"Missing data to drop student. Please check first/last name, and/or date of birth."
4	This method should indicate if the submitted date of birth is younger than 16	● Create any instance of date less that 16 years from today ● Input: "3/7/2020"	"DOB invalid: 3/7/2020 younger than 16 years old."
5	This method should indicate if there is white space inside of any submitted text space	● Any instance where white space is inside of submitted text ● Input: first name as "J ohn"	"First name and last name cannot contain spaces."
6	This method should indicate if there is white space inside of any submitted text space	● Any instance where white space is inside of submitted text ● Input: last name as "Do e"	"First name and last name cannot contain spaces."

Class name: TuitionManagerController
Method signature: protected void onLoadFileButtonClick() //load students from file to roster

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output

1	This method should add students from file and print upon success	● In Roster tab, click "Load from File"	Should print "Students loaded to the roster"

Class name: TuitionManagerController
Method signature: protected void onChangeMajorButtonClick() //changes major of student

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should update a student's major and print upon success	● Create a new instance of Student and add to roster ● Using same profile details, select a different major ● Click "Change Major" button	Should print profile of student and new major
2	This method should indicate if a student is not found in the roster	● Input details of a student not in the roster ● Click "Change Major" button	Notifies that student not found in roster
3	This method should indicate if required information is missing	● Any instance where the first name, last name, or date of birth is missing ● Input: Fill in first name and date of birth but leave last name blank	"Missing data to change major. Please check first/last name, and/or date of birth."
4	This method should indicate if there is white space inside of any submitted text space	● Any instance where white space is inside of submitted text ● Input: first name as "J ohn"	"First name, last name, and credits cannot contain spaces."
5	This method should indicate if there is white space inside of any submitted text space	● Any instance where white space is inside of submitted text ● Input: last name as "Do e"	"First name, last name, and credits cannot contain spaces."

Class name: TuitionManagerController
Method signature: protected void onRemoveButtonClick() //removes student from roster

Test Case #	Requirement	Test Description and Input	Expected

		Data	Result/Output
1	This method should remove a specified student from the roster and print upon success	● Create a new instance of Student and add to roster ● Using same profile details, click "Remove" button	Should print profile of student removed
2	This method should indicate if student to be removed is not in the roster	● Using unique/new profile details, indicate a Student ● Click "Remove" button	Notifies that student not found in roster
3	This method should indicate if required information is missing	● Any instance where first name, last name or date of birth is missing ● Fill in first name and date of birth but leave last name blank	"Missing data to remove student. Please check first/last name and/or date of birth."
4	This method should indicate if there is white space inside of any submitted text space	● Any instance where white space is inside of submitted text ● Input: first name as "J ohn"	"First name, last name, and credits cannot contain spaces."
5	This method should indicate if there is white space inside of any submitted text space	● Any instance where white space is inside of submitted text ● Input: last name as "Do e"	"First name, last name, and credits cannot contain spaces."

Class name: TuitionManagerController
Method signature: protected void onAddButtonClick() //adds student to roster

Test Case #	Requirement	Test Description and Input Data	Expected Result/Output
1	This method should add a student to the roster and print upon success	● Create a new Student by filling out details in Roster tab ● Click "Add" button	Should print profile of student added to roster
2	This method should indicate if required information is missing	● Any instance where first name, last name, date of birth, or credit amount is blank ● Input: Fill in first name, last name, and date of birth but leave credits	"Missing data to add student. Please check first/last name, date of birth and/or completed

		blank	credits."
3	This method should indicate if the requested student is already in the roster	• Any instance of a student who already exists in the roster (same first name, last name, and date of birth) • Input: After loading from file, "John Doe 1/2/2007"	Notify that this student is already in the roster.
4	This method should indicate if the submitted date of birth is younger than 16	• Create any instance of date less that 16 years from today • Input: "3/7/2020"	"DOB invalid: 3/7/2020 younger than 16 years old."
5	This method should indicate if the credit value is not an integer	• Any instance of a student with a non-integer amount of credits • Input: student with "xxx" credits	"Current credit load invalid: not an integer!"
6	This method should indicate if the credit value is negative	• Any instance of a student with a negative amount of credits • Input: student with -1 credits	"Current credit load invalid: cannot be negative!"
7	This method should indicate if there is white space inside of any submitted text space	• Any instance where white space is inside of submitted text • Input: first name as "J ohn"	"First name, last name, and credits cannot contain spaces."
8	This method should indicate if there is white space inside of any submitted text space	• Any instance where white space is inside of submitted text • Input: last name as "Do e"	"First name, last name, and credits cannot contain spaces."
9	This method should indicate if there is white space inside of any submitted text space	• Any instance where white space is inside of submitted text • Input: first name as "2 3"	"First name, last name, and credits cannot contain spaces."
10	This method should indicate if tristate status is selected but not a state	• Any instance where the tristate button is selected but no state is selected • Input: a student with "Tristate" status selected but not "NY" or "CT"	"Please select a state."