Roster Tab			
Test Case #	**Requirement**	**Test description and Input Data**	**Expected result/output**
1	A student must input a first name into the field.	When the 'Add', 'Remove', or 'Change Major' button is clicked on the *Roster* tab, a ***First Name*** must be inputted in the text field. Test input: "" as a ***First Name***	"Please enter a first name."
		When the 'Add', 'Remove', or 'Change Major' button is clicked on the *Roster* tab, a ***First Name*** must be inputted in the text field. Test input: "Charlie" as a ***First Name***	"Brown Charlie 3/2/1990 added to the roster." *(given that all previous fields that are required for adding a student are provided)*
2	A student must input a last name into the field.	When the 'Add', 'Remove', or 'Change Major' button is clicked on the *Roster* tab, a valid ***Last Name*** must be inputted in the text field. Test input: "" as a ***Last Name***	"Please enter a last name." *(given that all previous fields that are required for adding a student are provided)*
		When the 'Add', 'Remove', or 'Change Major' button is clicked on the *Roster* tab, a valid ***Last Name*** must be inputted in the text field. Test input: "Brown" as a ***Last Name***	"Brown Charlie 3/2/1990 added to the roster." *(given that all previous fields that are required for adding a student are provided)*
3	A student must have a valid date that is in proper notation.	When the 'Add', 'Remove', or 'Change Major' button is clicked on the *Roster* tab, the ***Date of Birth*** field cannot be empty.	"Please select a date." *(given that all previous fields that are required for adding a student are provided)*
		Test input: "" as a ***DOB*** When the 'Add', 'Remove', or 'Change Major' button is clicked on the *Roster* tab, a ***Date of Birth*** that provides a month, day, and year must be inputted in the text field. Test input: "aSL120!)@%&!)(#" as a ***DOB***	"Please select a date." *(given that all previous fields that are required for adding a student are provided)*
		When the 'Add', 'Remove', or 'Change Major' button is clicked on the *Roster* tab, a valid ***Date of Birth*** must allow the student must be 16 years or older. Test input: "3/1/2007"	"DOB invalid: 3/1/2007 younger than 16 years old." *(given that all previous fields that are required for adding a student are provided)*
		When the 'Add', 'Remove', or 'Change Major' button is clicked on	"DOB invalid: 3/19/2027 younger than 16 years old."

#	Requirement	Test	Expected Output
		the *Roster* tab, a valid **Date of Birth** must allow the student cannot be born today or at a future date.	*(given that all previous fields that are required for adding a student are provided)*
		Test input: "3/19/2027"	
		When the 'Add', 'Remove', or 'Change Major' button is clicked on the *Roster* tab, a valid **Date of Birth** must be a valid calendar date.	"Brown Charlie 2/29/2000 added to the roster." *(given that all previous fields that are required for adding a student are provided)*
		Test input: "2/29/2000"	
		When the 'Add', 'Remove', or 'Change Major' button is clicked on the *Roster* tab, a valid **Date of Birth** must be a valid calendar date.	"DOB invalid: 2/29/2001 not a valid calendar date!" *(given that all previous fields that are required for adding a student are provided)*
		Test input: "2/29/2001"	
		When the 'Add', 'Remove', or 'Change Major' button is clicked on the *Roster* tab, a valid **Date of Birth** must be a valid calendar date.	"Brown Charlie 3/2/1990 added to the roster." *(given that all previous fields that are required for adding a student are provided)*
		Test input: "3/2/1990"	
4	When adding a student, or changing their major, they must have a major inputted.	When the 'Add' button is clicked on the *Roster* tab, a valid **Major** radio button must be clicked.	"Please select a major." *(given that all previous fields that are required for adding a student are provided)*
		Test input: "" as the **Major.**	
		When the 'Add' button is clicked on the *Roster* tab, a valid **Major** radio button must be clicked.	"Brown Charlie 3/2/1990 added to the roster." *(given that all previous fields that are required for adding a student are provided)*
		Test input: *CS* as the **Major.**	
5	When adding a student, they must have a valid credits completed.	When the 'Add' button is clicked on the *Roster* tab, the user must enter a value for **credits completed**.	"Please enter credits completed." *(given that all previous fields that are required for adding a student are provided)*
		Test input: ""	
		When the 'Add' button is clicked on the *Roster* tab, the user must enter an integer for **credits completed**.	"Credits completed invalid: not an integer!" *(given that all previous fields that are required for adding a student are provided)*
		Test input: "What should I put here"	
		When the 'Add' button is clicked on the *Roster* tab, the user must enter a positive integer for **credits completed**.	"Credits completed invalid: cannot be negative!" *(given that all previous fields that are required for adding a student are provided)*
		Test input: "-69"	

		When the 'Add' button is clicked on the *Roster* tab, the user must enter a positive integer for **credits completed**. Test input: "69"	*"Brown Charlie 3/2/1990 added to the roster." (given that all previous fields that are required for adding a student are provided)*
6	The student must assign themselves as either a Resident or Non-Resident (Tri-state, International)	When the 'Add' button is clicked on the *Roster* tab, the user must click a radio button signifying a location status. Test input: ""	"The student must have a location status." *(given that all previous fields that are required for adding a student are provided)*
7	Only international students can study abroad.	When the 'Add' button is clicked on the *Roster* tab, the user must click a radio button signifying a location status. Test input: Resident (is checked) The student claims to study abroad despite not being an international student. Test input: Resident (is checked), Study Abroad (is highlighted) The student claims to study abroad and is an international student. Test input: International (is checked), Study Abroad (is highlighted)	*"Brown Charlie 3/2/1990 added to the roster." (given that all previous fields that are required for adding a student are provided)* "Only international students can study abroad." *(given that all previous fields that are required for adding a student are provided)* *"Brown Charlie 3/2/1990 added to the roster." (given that all previous fields that are required for adding a student are provided)*

8	If the student is already in the roster, they cannot add themselves again.	Given the student has already been added to the roster, let this new input be another submission of the same exact student details.
		Test input:
		  First Name: Charlie
		  Last Name: Brown
		  Date of Birth: 01/01/2000
		  Major: CS
		  Credits Completed: 80
		  Status: Resident
		  Action: Add
			"Brown Charlie 3/2/1990 is already in the roster."

9	When removing a student, a student must be in an existing roster.	Attempt to remove a student who has yet to be added to the roster.
		Test input:
		  First Name: Charlie
		  Last Name: Brown
		  Date of Birth: 01/01/2000
		  Major: CS
		  Credits Completed: 80
		  Status: Resident
		  Action: Remove
			"Charlie Brown 1/1/2000 is not in the roster."

		Given the student has already been added to the roster, let this new input request its removal.
		Test input:
		    First Name: Charlie
		    Last Name: Brown
		    Date of Birth: 01/01/2000
		    Major: CS
		    Credits Completed: 80
		    Status: Resident
		    Action: Remove
			"Charlie Brown 1/1/2000 removed from the roster."

		Attempt to remove a student from an empty roster Test input: Action: Remove	"Roster is empty."

10	A student must be in the roster in order to change their major.	Attempt to change the major of a student who has yet to be added to the roster.
		Test input:
		    First Name: Charlie
		    Last Name: Brown
		    Date of Birth: 01/01/2000
		    Major: CS
		    Credits Completed: 80
		    Status: Resident
		    Action: Remove
			"Charlie Brown 1/1/2000 is not in the roster."

		Attempt to change the major of a student who is in the roster.
		Test input:
		    First Name: Charlie
		    Last Name: Brown
		    Date of Birth: 01/01/2000
		    Major: CS
		    Credits Completed: 80
		    Status: Resident
		    Action: Remove
			"Charlie Brown 1/1/2000 major changed to CS"

		Attempt to change the major of a student despite the roster being empty. Test input: Action: Remove	"Roster is empty!"
11	A roster can be loaded from a file.	Attempt to load the file via a valid directory. File is not found	"Students loaded to the roster." *throws FileNotFoundException*

Enroll/Drop Tab			
Test Case #	**Requirement**	**Test description and Input Data**	**Expected result/output**
1	A student must input a first name into the field.	To Enroll or Drop, a **First Name** must be inputted in the text field. Test input: "" as a **First Name** To Enroll or Drop, a **First Name** must be inputted in the text field. Test input: "Charlie" as a **First Name**	"Please enter a first name." *"John Doe 1/2/2007 enrolled 14 credits" (given that all previous fields that are required for adding a student are provided)*
2	A student must input a last name into the field.	To Enroll or Drop, a valid **Last Name** must be inputted in the text field. Test input: "" as a **Last Name** To Enroll or Drop, a valid **Last Name** must be inputted in the text field. Test input: "Brown" as a **Last Name**	"Please enter a last name." *(given that all previous fields that are required for adding a student are provided)* *"John Doe 1/2/2007 enrolled 14 credits" (given that all previous fields that are required for adding a student are provided)*
3	A student must have a valid date that is in proper notation.	To Enroll or Drop, the **Date of Birth** field cannot be empty. Test input: "" as a **DOB** To Enroll or Drop, a **Date of Birth** that provides a month, day, and year must be inputted in the text field. Test input: "aSL120!)@%&!)(#" as a **DOB** To Enroll or Drop, a valid **Date of Birth** must allow the student must be 16 years or older. Test input: "3/1/2007" To Enroll or Drop, a valid **Date of Birth** must allow the student cannot be born today or at a future date. Test input: "3/19/2027" To Enroll or Drop, a valid **Date of Birth** must be a valid calendar date. Test input: "2/29/2000" To Enroll or Drop, a valid **Date of Birth** must be a valid calendar date. Test input: "2/29/2001"	"Please select a date." *(given that all previous fields that are required for adding a student are provided)* "Please select a date." *(given that all previous fields that are required for adding a student are provided)* "DOB invalid: 3/1/2007 younger than 16 years old." *(given that all previous fields that are required for adding a student are provided)* "DOB invalid: 3/19/2027 younger than 16 years old." *(given that all previous fields that are required for adding a student are provided)* *"John Doe 1/2/2007 enrolled 14 credits" (given that all previous fields that are required for adding a student are provided)* "DOB invalid: 2/29/2001 not a valid calendar date!" *(given that all previous fields that are required for adding a*

			student are provided)
		To Enroll or Drop, a valid **Date of Birth** must be a valid calendar date. Test input: "3/2/1990"	*"John Doe 1/2/2007 enrolled 14 credits" (given that all previous fields that are required for adding a student are provided)*
4	When enrolling a student, they must have a valid credits enrolled.	To Enroll, the user must enter a value for **credits enrolled**. Test input: ""	"Credits enrolled is not an integer." *(given that all previous fields that are required for adding a student are provided)*
		To Enroll, the user must enter an integer for **credits enrolled**. Test input: "What should I put here"	"Credits enrolled is not an integer." *(given that all previous fields that are required for adding a student are provided)*

		To Enroll, the user must enter an integer of at least 3 for **credits enrolled**.
		
		Test input:
		  First Name: John
		  Last Name: Doe
		  DOB: 1/2/2007
		  Credits: 2
			"(Resident) 2: invalid credit hours"

		To Enroll, the user must enter a maximum integer of 24 for **credits enrolled**. The newly entered credits will replace the number of credits previously entered.
		
		Test input:
		  First Name: John
		  Last Name: Doe
		  DOB: 1/2/2007
		  Credits: 25
		  (Status: Resident)
		International
			"(Resident) 25: invalid credit hours"

		Test input:
		  First Name: John
		  Last Name: Doe
		  DOB: 1/2/2007
		  Credits: 3
		  (Status: Resident)
			John Doe 1/2/2007 enrolled 3 credits.

		To Enroll, the user must enter a maximum integer of 24 for **credits enrolled**. The newly entered credits	*John Doe 1/2/2007 enrolled 24 credits.*

will replace the number of credits previously entered.

Test input:
    First Name: John
    Last Name: Doe
    DOB: 1/2/2007
    Credits: 24
    (Status: Resident)
International, study-abroad students can only have a max of 12 credits.

Test input:
    First Name: John
    Last Name: Doe
    DOB: 1/2/2007
    Credits: 12
    (Status: International + Study Abroad)
International, study-abroad students can only have a max of 12 credits.
		John Doe 1/2/2007 enrolled 12 credits.

Test input:
    First Name: John
    Last Name: Doe
    DOB: 1/2/2007
    Credits: 13
    (Status: International + Study Abroad)
International, non-study-abroad students need at least 12 credits.
		(International studentstudy abroad) 13: invalid credit hours.

Test input:
    First Name: John
    Last Name: Doe
    DOB: 1/2/2007
    Credits: 12
    (Status: International)
International, non-study-abroad students need at least 12 credits.
		John Doe 1/2/2007 enrolled 12 credits.

Test input:
    First Name: John
    Last Name: Doe
    DOB: 1/2/2007
    Credits: 11
    (Status: International)
		(International student) 11: invalid credit hours.

5 When dropping a student, they must be in	Drop a student who is already in the enrollment list.	*"John Doe 1/2/2007 dropped."*

the enrollment list.

Test input:
    First Name: John
    Last Name: Doe
    DOB: 1/2/2007
    Credits: 14
    Action: Drop
Attempt to drop a student who is not in the enrollment list.

Test input:
    First Name: John
    Last Name: Doe
    DOB: 1/2/2007
    Credits: 14
    Action: Drop

"John Doe 1/2/2007 is not enrolled."

Test Case #	Requirement	Test description and Input Data	Expected result/output
1	A student must input a first name into the field.	To be granted a scholarship, a *First Name* must be inputted in the text field. Test input: "" as a *First Name* To be granted a scholarship, a *First Name* must be inputted in the text field. Test input: "Charlie" as a *First Name*	"Please enter a first name." *"John Doe 1/2/2007 enrolled 14 credits" (given that all previous fields that are required for adding a student are provided)*
2	A student must input a last name into the field.	To be granted a scholarship, a valid *Last Name* must be inputted in the text field. Test input: "" as a *Last Name* To be granted a scholarship, a valid *Last Name* must be inputted in the text field. Test input: "Brown" as a *Last Name*	"Please enter a last name." *(given that all previous fields that are required for adding a student are provided)* *"John Doe 1/2/2007 enrolled 14 credits" (given that all previous fields that are required for adding a student are provided)*
3	A student must have a valid date that is in proper notation.	To be granted a scholarship, the *Date of Birth* field cannot be empty. Test input: "" as a *DOB* To be granted a scholarship, a *Date of Birth* that provides a month, day, and year must be inputted in the text field. Test input: "aSL120!)@%&!)(#" as a *DOB* To be granted a scholarship, a valid *Date of Birth* must allow the student must be 16 years or older. Test input: "3/1/2007" To be granted a scholarship, a valid *Date of Birth* must allow the student cannot be born today or at a future date. Test input: "3/19/2027" To be granted a scholarship, a valid *Date of Birth* must be a valid calendar date. Test input: "2/29/2000" To be granted a scholarship, a valid	"Please select a date." *(given that all previous fields that are required for adding a student are provided)* "Please select a date." *(given that all previous fields that are required for adding a student are provided)* "DOB invalid: 3/1/2007 younger than 16 years old." *(given that all previous fields that are required for adding a student are provided)* "DOB invalid: 3/19/2027 younger than 16 years old." *(given that all previous fields that are required for adding a student are provided)* *"John Doe 1/2/2007 enrolled 14 credits" (given that all previous fields that are required for adding a student are provided)* "DOB invalid: 2/29/2001 not

		Date of Birth must be a valid calendar date. Test input: "2/29/2001"	a valid calendar date!" *(given that all previous fields that are required for adding a student are provided)*
4	Scholarship amount must be valid	To be granted a scholarship, a valid *Date of Birth* must be a valid calendar date. Test input: "3/2/1990" If scholarship is 0 or less Test input: 0 If scholarship is 1-10000:	*"John Doe 1/2/2007 enrolled 14 credits" (given that all previous fields that are required for adding a student are provided)* *"0: invalid amount"*
		Test input: 　First Name: John 　Last Name: Doe 　DOB: 1/2/2005 　Amount: 1 If scholarship is 1-10000:	*"John Doe 1/2/2005: scholarship amount updated."*
		Test input: 　First Name: John 　Last Name: Doe 　DOB: 1/2/2005 　Amount: 10000 If scholarship is 10001 or greater	*"John Doe 1/2/2005: scholarship amount updated."*
		Test input: 10001 The inputted student is not in the roster and cant be awarded a scholarship.	*"10001: invalid amount"*
	Student must be in the roster	Test input: 　First Name: John 　Last Name: Doe 　DOB: 1/2/2005 　Amount: 104 The inputted student is not in the roster and cant be awarded a scholarship.	*"John Doe 1/2/2005 is not in the roster."*
	Student must be full time to be eligible for the scholarship	Test input: 　First Name: John 　Last Name: Doe 　DOB: 1/2/2005 　Amount: 104	*"John Doe 1/2/2005 part time student is not eligible for the scholarship."*

		The inputted student is not in the roster and cant be awarded a scholarship.	

Student must be resident to be eligible for scholarship	Test input:
	    First Name: John
	    Last Name: Doe
	    DOB: 1/2/2005
	    Amount: 104
	    (Status: Non-Resident)
			"John Doe 1/2/2005 (Non-Resident) is not eligible for the scholarship."

Amount must be an integer.	The user inputs an amount that is not an integer.
	
	Test input:
	    First Name: John
	    Last Name: Doe
	    DOB: 1/2/2005
	    Amount: "Hey man"
			"Amount is not an integer"

Print tab

Test Case #	Requirement	Test description and Input Data	Expected result/output
1	When the roster is empty, the user cannot print the roster.	The student has yet to add any students to the roster. Test input: any which print the roster	"Roster is empty!"
2	When the enrollment is empty, the user cannot print the roster.	The student has yet to enroll any students. Test input: any which print the enrollment	"Enrollment is empty!"
3			
4			
5			
6			
7			
8			
9			