

Test Case #	Test Goal	Input Data	Expected Output
1	Tests printing out an empty list.	<ol style="list-style-type: none"> <li>1. Input Tab 3: [Print List]</li> <li>2. Input Tab 3: [Print by Name]</li> <li>3. Input Tab 3: [Print by Date]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Error message that states that there is nothing in the roster</li> <li>2. Output: Error message that states that there is nothing in the roster</li> <li>3. Output: Error message that states that there is nothing in the roster</li> </ol>
2	Tests adding students.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] John Doe [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 1: [Name] Bob McBob [Major] IT [NonResident][International] [Credit] 15</li> <li>3. Input Tab 1: [Name] Joe Mama [Major] EE [NonResident][International][Study Abroad] [Credit] 12 [Add Student]</li> <li>4. Input Tab 1: [Name] Sunny McSunnyface [Major] BA [Resident] [Credit] 10 [Add Student]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Message that states that student was added.</li> <li>3. Output: Message that states that student was added.</li> <li>4. Output: Message that states that student was added.</li> </ol>
3	Tests adding a duplicate student.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] John Doe [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 1: [Name] John Doe [Major] CS [Resident] [Credit] 18</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Error message that</li> </ol>

		[Add Student]	states that the student is already in the roster.
4	Tests adding a student with missing data values.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Bob Doe [NonResident][Tristate] [New York] [Credit] 18</li> <li>2. Input Tab 1: [NonResident][Tristate] [New York] [Credit] 18</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Error message that states that there is missing data.</li> <li>2. Output: Error message that states that there is missing data.</li> </ol>
5	Tests removing a nonexistent student.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Ben Neb [Major] EE [Remove Student]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Error message that states student does not exist.</li> </ol>
6	Tests removing a student with missing data values.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Joe Mama [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 2: [Major] CS [Remove Student]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Error message that states that there is missing data.</li> </ol>
7	Tests removing a student that exists in the roster.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Joe Mama [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 2: [Name] Joe Mama [Major] CS [Remove Student]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Message that states that student was removed.</li> </ol>
8	Tests printing the list of students.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] John Doe [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 1: [Name] Bob McBob [Major] IT</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output:</li> </ol>

		[NonResident][International] [Credit] 15 3. Input Tab 1: [Name] Sunny McSunnyface [Major] BA [Resident] [Credit] 10 [Add Student] 4. Input Tab 3: [Print List]	Message that states that student was added. 3. Output: Message that states that student was added. 4. Output: Bob McBob:IT:15 Credit Hours:Tuition Due:0.00:Total Payment:0.00:Last Payment Date: --/--/--:NonResident:International John Doe:CS:18 Credit Hours:Tuition Due:0.00:Total Payment:0.00:Last Payment Date: --/--/--:Resident Sunny McSunnyface:BA:10 Credit Hours:Tuition Due:0.00:Total Payment:0.00:Last Payment Date: --/--/--:Resident
9	Tests calculating the tuition.	1. Input Tab 1: [Name] John Doe [Major] CS [Resident] [Credit] 18 [Add Student] 2. Input Tab 1: [Name] Bob McBob [Major] IT [NonResident][International] [Credit] 15 3. Input Tab 1: [Name] Sunny McSunnyface [Major] BA [Resident] [Credit] 10 [Add Student] 4. Input Tab 3: [Calculate Tuition]	1. Output: Message that states that student was added. 2. Output: Message that states that student was added. 3. Output: Message that states that student was added. 4. Message that states that calculation is

			complete.
10	Test paying tuition with missing data.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Joe Mama [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 2: [Name] Joe Mama [Payment Amount] 10 [Payment Date] 1/1/2021 [Pay]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Error message that states that there is missing data.</li> </ol>
11	Test paying tuition with a nonexistent student.	<ol style="list-style-type: none"> <li>1. Input Tab 2: [Name] Joe Mama [Payment Amount] 10 [Payment Date] 1/1/2021 [Pay]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Error message that states that the student is not in the roster.</li> </ol>
12	Test paying tuition with invalid payment amount.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Joe Mama [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 2: [Name] Joe Mama [Payment Amount] -10 [Payment Date] 1/1/2021 [Pay]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Error message that states that the payment amount is invalid.</li> </ol>
13	Test paying tuition with future date.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Joe Mama [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 2: [Name] Joe Mama [Payment Amount] 10 [Payment Date] 12/1/2021 [Pay]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Error message that states that the date is invalid.</li> </ol>
14	Test paying tuition with past date.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Joe Mama [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 2: [Name] Joe Mama [Payment Amount] 10 [Payment Date] 12/1/2022 [Pay]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Error message that states that the date is invalid.</li> </ol>

15	Tests overpaying tuition.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Joe Mama [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 2: [Name] Joe Mama [Payment Amount] 100000000 [Payment Date] 1/1/2021 [Pay]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Error message that states that the payment amount is over the total amount due.</li> </ol>
16	Test paying tuition successfully.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Joe Mama [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 2: [Name] Joe Mama [Payment Amount] 1000 [Payment Date] 1/1/2021 [Pay]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Message that states that payment was applied.</li> </ol>
17	Tests printing by date	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Joe Mama [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 1: [Name] Bob Bob [Major] CS [Resident] [Credit] 10 [Add Student]</li> <li>3. Input Tab 2: [Name] Joe Mama [Payment Amount] 1000 [Payment Date] 1/1/2021 [Pay]</li> <li>4. Input Tab 2: [Name] Bob Bob [Payment Amount] 1000 [Payment Date] 2/1/2021 [Pay]</li> <li>5. Input Tab 3: [Print by Date]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Message that states that student was added.</li> <li>3. Output: Message that states that payment was applied.</li> <li>4. Output: Message that states that payment was applied.</li> <li>5. Joe Mama:CS:18 Credit Hours:Tuition Due:15612.00:Total Payment:1000.00:La st Payment Date:</li> </ol>

			1/1/2021:Resident Bob Bob:CS:10: Credit Hours:Tuition Due:14804.00:Total Payment:1000.00:La st Payment Date: 1/1/2021:Resident
18	Tests updating study abroad for an international student.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Bob McBob [Major] IT [NonResident][International][Study Abroad] [Credit] 15 [Add Student]</li> <li>2. Input Tab 2: [Name] Bob McBob [Major] IT [Enroll in Study Abroad Program]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Message that states that tuition was updated.</li> </ol>
19	Tests updating study abroad for a student that is not international.	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Joe Mama [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 2: [Name] Joe Mama [Major] CS [Enroll in Study Abroad Program]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Message that states that the international student could not be found.</li> </ol>
20	Tests giving financial aid for a nonexistent student.	<ol style="list-style-type: none"> <li>1. Input Tab 2: [Name] John Financial [Major] IT [Financial Aid Amount] 10 [Set]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Error message that states that student is not in the roster.</li> </ol>
21	Tests giving missing financial aid amount	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Joe Mama [Major] CS [Resident] [Credit] 18 [Add Student]</li> <li>2. Input Tab 2: [Name] Joe Mama [Major] CS [Financial Aid Amount] -10 [Set]</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that states that student was added.</li> <li>2. Output: Error message that states the amount is invalid.</li> </ol>
22	Tests giving financial aid amount to part	<ol style="list-style-type: none"> <li>1. Input Tab 1: [Name] Joe Mama [Major] CS</li> </ol>	<ol style="list-style-type: none"> <li>1. Output: Message that</li> </ol>

	time students.	[Resident] [Credit] 5 [Add Student] 2. Input Tab 2: [Name] Joe Mama [Major] CS [Financial Aid Amount] 10 [Set]	states that student was added. 2. Output: Error message that states that part time students are not allowed to have financial aid.
23	Tests giving financial aid amount to non residents students.	1. Input Tab 1: [Name] Joe Mama [Major] CS [NonResident] [Credit] 15 [Add Student] 2. Input Tab 2: [Name] Joe Mama [Major] CS [Financial Aid Amount] 10 [Set]	1. Output: Message that states that student was added. 2. Output: Error message that states that only residents can have financial aid.
24	Tests giving financial aid successfully.	1. Input Tab 1: [Name] Joe Mama [Major] CS [Resident] [Credit] 15 [Add Student] 2. Input Tab 2: [Name] Joe Mama [Major] CS [Financial Aid Amount] 10 [Set]	1. Output: Message that states that student was added. 2. Output: Message that states tuition was updated.
25	Tests giving financial aid twice.	1. Input Tab 1: [Name] Joe Mama [Major] CS [Resident] [Credit] 15 [Add Student] 2. Input Tab 2: [Name] Joe Mama [Major] CS [Financial Aid Amount] 10 [Set] 3. Input Tab 2: [Name] Joe Mama [Major] CS [Financial Aid Amount] 10 [Set]	1. Output: Message that states that student was added. 2. Message that states tuition was updated. 3. Output: Error message that states that Student cannot receive financial aid twice.

