Test Specifications: Tuition Manager Tool

Test Case #	Requirement	Test Description & Input Data	Expected Result/Output
No. 1	The method shall return true for adding a valid Resident Student to the roster array, and the student should be added.	Add a Resident Student to the Roster array. Create new Resident() object with valid fields and pass into add() method of Roster	Returns true from the calling method with the student in the roster array. Console output shows a success message with description.
No. 2	The method shall return true for adding a valid Non-Resident Student to the roster array, and the student should be added.	Add a Non-Resident Student to the Roster array. Create new NonResident() object with valid fields and pass into add() method of Roster	Returns true from the calling method with the student in the roster array. Console output shows a success message with description.

No. 3	The method shall return true for adding a valid TriState (NY) Student to the roster array, and the student should be added.	Add a Tristate (NY) Student to the Roster array. Create new TriState() object with valid fields and “NY” for the state, and pass into add() method of Roster	Returns true from the calling method with the student in the roster array. Console output shows a success message with description.
No. 4	The method shall return true for adding a valid TriState (CT) Student to the roster array, and the student should be added.	Add a Tristate (CT) Student to the Roster array. Create new TriState() object with valid fields and “CT” for the state, and pass into add() method of Roster	Returns true from the calling method with the student in the roster array. Console output shows a success message with description.
No. 5	The method shall return true for adding a valid International Study Abroad Student to the roster array, and the student should be added.	Add an International (SA) Student to the Roster array. Create new International() object with valid fields and studyAbroad as true, and pass into add() method of Roster	Returns true from the calling method with the student in the roster array. Console output shows a success message with description.
No. 6	The method shall return true for adding a valid International Student to the roster array, and the student should be added.	Add an International Student to the Roster array. Create new International() object with valid fields and pass into add() method of Roster	Returns true from the calling method, with the student in the roster array. Console output shows a success message with description.

No. 7	The method should return false when trying to add any Student to the roster array if they already are inside it. The student will not be added.	Add a Student to the Roster array (In Roster) Create a new Student() object with the same Profile as an existing student in the roster. Pass the new object into the add() method of Roster	Returns false from the calling method, canceling the command. Console output shows an error message with description.
No. 8	The method should return true after removing a Student from the roster array.	Remove a Student from the Roster array. (In Roster) Create a new Student() object with valid fields and add them to the Roster array. Now remove that same student using remove() method of Roster	Returns true from the calling method, without the student in the roster array. Console output shows a success message with description.
No. 9	The method should return false after attempting to remove a Student that does not exist in the roster array.	Remove a Student from the Roster array. (Not In Roster) Create a new Student() with valid fields, who is not already in the Roster array. Then pass in this object to the remove() method of Roster	Returns false from the calling method, canceling the command. Console output shows an error message with description.
No. 10	The method should return false after trying to remove a Student that is still enrolled, from the roster array.	Remove a Student from the Roster array. (Enrolled) Create a new Student() and use add() of Roster to add to the roster array. Then use add() of Enrollment to enroll the student.	Returns false from the calling method, canceling the command. Console output shows an error message with description.

		Last, use remove() of Roster to try and remove the student who is still enrolled.	
No. 11	The method should successfully change a student's major to a newly selected major if they are present in the roster array.	Change Student Major (In Roster) Retrieved the new selected major from the radio button and set it as the new major for the entered Student using the setMajor() method on Student	Returns from the calling method with the student's updated major in the roster array. Console output shows a success message with description.
No. 12	The method should not successfully change a student's major to a newly selected major if they are not present in the roster array.	Change Student Major (Not In Roster) Retrieved the new selected major from the radio button and set it as the new major for the entered Student using the setMajor() method on Student. Make sure the entered student does not exist in the Roster	Returns from the calling method, canceling the command. Console output shows an error message with description.
No. 13	The method should successfully add a valid student to the enrollment array, given that they are in the roster array.	Add a Student to the Enrollment array (In Roster) Create a new Student() and add them to the roster array. Next create a new enrollStudent() with the same profile and pass it in the add() method of enrollment	Returns from the calling method, with the student in the enrollment array. Console output shows a success message with description.

No. 14	The method should not add a valid student to the enrollment array if they are not in the roster array.	Add a Student to the Enrollment array (Not In Roster) Create a new enrollStudent() with a Profile that does not match anyone in the Roster array. Try adding to the enrollment array using the add() method of Enrollment	Returns from the calling method, canceling the command. Console output shows an error message with description.
No. 15	The method should not add a student to the enrollment array if the number of credits enrolled is not within the correct threshold for a Resident Student	Add a Student to the Enrollment array (Invalid Credits: Resident) Create a new enrollStudent() from a student() in the Roster. Set the enrolled credits to any value < 3 or > 24. Attempt to add using the add() method.	Returns from the calling method, canceling the command. Console output shows an error message with description.
No. 16	The method should not add a student to the enrollment array if the number of credits enrolled is not within the correct threshold for a Non-Resident Student	Add a Student to the Enrollment array (Invalid Credits: Non-Resident) Create a new enrollStudent() from a student() in the Roster. Set the enrolled credits to any value < 3 or > 24. Attempt to add using the add() method.	Returns from the calling method, canceling the command. Console output shows an error message with description.

No. 17	The method should not add a student to the enrollment array if the number of credits enrolled is not within the correct threshold for an International Study Abroad Student	Add a Student to the Enrollment array (Invalid Credits: International Study Abroad) Create a new enrollStudent() from a student() in the Roster. Set the enrolled credits to any value < 3 or > 12. Attempt to add using the add() method.	Returns from the calling method, canceling the command. Console output shows an error message with description.
No. 18	The method should successfully update the students enrollment credits to the new value given.	Update Student enrollment credits (Enrolled) Create a new enrollStudent() object with the same information as the student to update. Use the new value for enrollment credits and then pass it into the add() method to overwrite the old value.	Returns from the calling method with the student's updated enrolled credits in the enrollment array. Console output shows a success message with description.
No. 19	The method should return true and the student should be removed from the enrollment array if they are enrolled	Remove a Student from the Enrollment array (Enrolled). Create a new enrollStudent() object and pass into the remove() method of enrollment. Make sure the information entered matches an enrollStudent already in the array.	Returns true from the calling method, without the student in the enrollment array. Console output shows a success message with description.

No. 20	The method should return false and the student should not be removed from the enrollment array if they are not enrolled	Remove a Student from the Enrollment array (Not Enrolled) Create a new enrollStudent() object and pass into the remove() method of enrollment. Make sure the information entered does not match an enrollStudent already in the array.	Returns from the calling method, canceling the command. Console output shows an error message with description.
No. 21	The method should award a scholarship to a Student who is in the roster and eligible for a scholarship.	Award a Student a scholarship (In Roster, Eligible) Create a new Resident() student and add them to the Roster and Enrollment array with enrolled credits >= 12. Enter their scholarship amount in the scholarship page and award them.	Returns from the calling method, with the student's new scholarship amount updated. Console output shows a success message with description.
No. 22	The method should not award a scholarship to a Student who is in the roster and eligible for a scholarship, but the scholarship amount entered is not valid	Award a Student a scholarship (In Roster, Eligible, Invalid Scholarship Amount) Create a new Resident() student and add them to the Roster and Enrollment array with enrolled credits >= 12. Enter their scholarship amount with a value < 0 or > 10000. Then attempt to award them the scholarship.	Returns from the calling method, canceling the command. Console output shows an error message with description.

No. 23	The method should not award a scholarship to a Student who is in the roster and ineligible due to their status. (Not a Resident)	Award a Student a scholarship (In Roster, Not Eligible Status) Create a new Non-Resident(), International(), or TriState() student and add them to the Roster and Enrollment array with enrolled credits >= 12. Enter their scholarship amount in the scholarship page and attempt to award them.	Returns from the calling method, canceling the command. Console output shows an error message with description.
No. 24	The method should not award a scholarship to a Student who is in the roster and ineligible due to their enrolled credits. (Qualifies as Part-Time)	Award a Student a scholarship (Not In Roster, Not Eligible Credits) Create a new Resident() student and add them to the Roster and Enrollment array with enrolled credits < 12. Enter their scholarship amount in the scholarship page and attempt to award them.	Returns from the calling method, canceling the command. Console output shows an error message with description.
No. 25	The method should print the roster array ordered ascending by Profiles (lname, fname, dob)	Print Roster array by Profile, ordered ascending. In the print tab, select the print type to “Roster: Profile” and click the print button.	Returns from the calling method. Console output shows a success message. Secondary console output shows the entire roster printed by ascending order of Profile.

No. 26	The method should print the roster array ordered ascending by Class Standing (freshman, sophomore, junior, senior)	Print Roster array by Class Standing, ordered ascending. In the print tab, select the print type to “Roster: Standing” and click the print button.	Returns from the calling method. Console output shows a success message. Secondary console output shows the entire roster printed by ascending order of class standing.
No. 27	The method should print the roster array ordered ascending by school and major.	Print Roster array by school and major, ordered ascending. In the print tab, select the print type to “Roster: School and Major” and click the print button.	Returns from the calling method. Console output shows a success message. Secondary console output shows the entire roster printed by ascending order of school and major.
No. 28	The method should print only students from the school “SAS” in the roster array, ordered ascending by Profile (lname, fname, dob)	Print Roster array by selected school (SAS), ordered ascending In the print tab, select the print type to “Roster: Select School” and the school name as “SAS”. Click on the print button after.	Returns from the calling method. Console output shows a success message. Secondary console output shows only students from SAS in the entire roster, in ascending order by Profile.
No. 29	The method should print only students from the school “SOE” in the roster array, ordered ascending by Profile (lname, fname, dob)	Print Roster array by selected school (SOE), ordered ascending In the print tab, select the print type to “Roster: Select School” and the	Returns from the calling method. Console output shows a success message. Secondary console output shows only students from SOE in

		school name as “SOE”. Click on the print button after.	the entire roster, in ascending order by Profile.
No. 30	The method should print only students from the school “SC&I” in the roster array, ordered ascending by Profile (lname, fname, dob)	Print Roster array by selected school (SC&I), ordered ascending In the print tab, select the print type to “Roster: Select School” and the school name as “SC&I”. Click on the print button after.	Returns from the calling method. Console output shows a success message. Secondary console output shows only students from SC&I in the entire roster, in ascending order by Profile.
No. 31	The method should print only students from the school “RBS” in the roster array, ordered ascending by Profile (lname, fname, dob)	Print Roster array by selected school (RBS), ordered ascending In the print tab, select the print type to “Roster: Select School” and the school name as “RBS”. Click on the print button after.	Returns from the calling method. Console output shows a success message. Secondary console output shows only students from RBS in the entire roster, in ascending order by Profile.
No. 32	The method should print students who are currently enrolled from the enrollment array in no particular order.	Print Enrollment array, In the print tab, select the print type to “Enrollment” and click the print button.	Returns from the calling method. Console output shows a success message. Secondary console output shows all enrolled students.

No. 33	The method should print students who are currently enrolled from the enrollment array in no particular order, with their total tuition due for the semester.	Print Enrollment array with calculated tuition In the print tab, select the print type to “Tuition Due” and click the print button.	Returns from the calling method. Console output shows a success message. Secondary console output shows all enrolled students and their complete information with tuition calculation based on their residency status.
No. 34	The method should end the current semester by clearing the enrollment and updated completed credits for all enrolled students. It should also print out any students who are eligible for graduation.	End semester for currently enrolled students Click the “End Semester” button on the semester Tab.	Returns from the calling method. Credits completed updated in Roster array for all enrolled students. Enrollment object is reset, clearing all students. Console output shows a success message for updating credits completed. Secondary output shows all students in roster eligible for graduation (120+ completed credits)
No. 35	The method should return immediately with error message since the Roster array is currently empty	Print Roster array by Profile, ordered ascending (Empty) In the print tab, select the print type to “Roster: Profile” and click the print button.	Returns from the calling method, canceling the command. Console output shows an error message with description. Secondary console contains no output.

No. 36	The method should return immediately with error message since the Roster array is currently empty	Print Roster array by Class Standing, ordered ascending (Empty) In the print tab, select the print type to “Roster: Standing” and click the print button.	Returns from the calling method, canceling the command. Console output shows an error message with description. Secondary console contains no output.
No. 37	The method should return immediately with error message since the Roster array is currently empty	Print Roster array by school and major, ordered ascending (Empty) In the print tab, select the print type to “Roster: School and Major” and click the print button.	Returns from the calling method, canceling the command. Console output shows an error message with description. Secondary console contains no output.
No. 38	The method should return immediately with error message since the Roster array is currently empty	Print Roster array by selected school (SAS), ordered ascending (Empty) In the print tab, select the print type to “Roster: Select School” and the school name as “SAS”. Click on the print button after.	Returns from the calling method, canceling the command. Console output shows an error message with description. Secondary console contains no output.
No. 39	The method should return immediately with error message since the Roster array is currently empty	Print Roster array by selected school (SOE), ordered ascending (Empty) In the print tab, select the print type to “Roster: Select School” and the school name as “SOE”. Click on the	Returns from the calling method, canceling the command. Console output shows an error message with description. Secondary console

		print button after.	contains no output.
No. 40	The method should return immediately with error message since the Roster array is currently empty	Print Roster array by selected school (SC&I), ordered ascending (Empty) In the print tab, select the print type to “Roster: Select School” and the school name as “SC&I”. Click on the print button after.	Returns from the calling method, canceling the command. Console output shows an error message with description. Secondary console contains no output.
No. 41	The method should return immediately with error message since the Roster array is currently empty	Print Roster array by selected school (RBS), ordered ascending (Empty) In the print tab, select the print type to “Roster: Select School” and the school name as “RBS”. Click on the print button after.	Returns from the calling method, canceling the command. Console output shows an error message with description. Secondary console contains no output.
No. 42	The method should return immediately with error message since the Enrollment array is currently empty	Print Enrollment array (Empty) In the print tab, select the print type to “Enrollment” and click the print button.	Returns from the calling method, canceling the command. Console output shows an error message with description. Secondary console contains no output.

No. 43	The method should return immediately with error message since the Enrollment array is currently empty	Print Enrollment array with calculated tuition (Empty) In the print tab, select the print type to “Tuition Due” and click the print button.	Returns from the calling method, canceling the command. Console output shows an error message with description. Secondary console contains no output.
No. 44	The method should return immediately with error message since the Enrollment array is currently empty	End semester for currently enrolled students (Empty) Click the “End Semester” button on the semester Tab.	Returns from the calling method, canceling the command. Console output shows an error message with description. Secondary console contains no output.
No. 45	The method should prompt the user with a file explorer window to choose a text file to import. Assume that the text file is always formatted correctly	Load roster from local text file chosen by user. Click on the “Load from FIle” button in the roster tab and chose a valid text file from the file prompt window.	Returns from the calling method, with all students from the text file loaded into the Roster array. Console output shows a success message. File name text field displays the name of the file.