Group 10

COM102: PSA#2 Test Plan

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| **Test Case ID** | **Test Description** | **Test Data** | **Expected Result** | **Actual Result** | **Pass/Fail** | **Evidence ID** |
| 1 | When the project is ran, the Menu options should appear (Executed within the menuOptions method inside the start method) prompting the user to enter a command correlating to a 1-5 value | (Project is Started/Ran) | The menu options (5) should appear, also prompting the user to select one to continue | The menu options successfully appear, further prompting the user to specify a value between 1 and 5 (which links to command/method) | Pass | 1 |
| 2 | When the user is prompted to type which menu option they want to execute and don’t type a value that is specified (typing a letter instead of 1-5, or typing a number that is greater than 5 or smaller than 1) | Data Inputted: ‘A’ | A message should appear telling the user their input is not suitable and to try again (specifying the value should be between 1 and 5) | A message appears telling the user their input is not suitable, and prompts them to try again | Pass | 2 |
| 3 | When the user is prompted to type which menu option they want to execute and enter a null value, the system should prompt a user to enter a suitable input | Data Inputted: null | A message should appear telling the user their input is not suitable and to try again (specifying the value should be between 1 and 5) | A message appears telling the user their input is not suitable, and prompts them to try again | Pass | 3 |
| 4 | When the user inputs 1 (to add a user) the addStudent method is executed (inside the writestudent method), asking the user to type the student they want to register | Data Inputted: 1 | A message should appear asking the user to type the name of the student they want to register | The system prompts the user to enter the students name | Pass | 4 |
| 5 | When the user wishes to add a student whenever the register has reached its maximum limit, the system will tell them they can resume as the max limit has already been reached | Data Inputted: 1 | A message should appear telling the user there is already 20 students | A message appears telling the user the max limit has already been reached | Pass | 5 |
| 6 | When the user tries to enter a null value when registering a students name, they system will tell them to enter a valid value | Name: Null | A message should appear, telling the user what requirements they want met in order to register a student (preventing the user from resuming without meeting the criteria) | A message appears, preventing the user from resuming without meeting the criteria | Pass | 6 |
| 7 | When the user tries to enter a name which exceeds the maximum length, a message is shown telling the user what specifications needs to be met in order to resume | Name: Ryannnnanananana | A message should appear, telling the user what requirements they want met in order to register a student (preventing the user from resuming without meeting the criteria) | A message appears, preventing the user from resuming without meeting the criteria | Pass | 7 |
| 8 | When the user tries to enter a name does not meet the minimum length requirement, a message is shown telling the user what specifications needs to be met in order to resume | Name: Ra | A message should appear telling the user what requirements they want met in order to register a student (preventing the user from resuming without meeting the criteria) | A message appears, preventing the user from resuming without meeting the criteria | Pass | 8 |
| 9 | After the name has been submitted, the addDate method should execute (inside the start method), prompting to enter their DOB in the format of dd/mm/yyyy | Name: Ryan | A message should appear, prompting the user to enter their DOB | A message appears, telling the user to enter their DOB | Pass | 9 |
| 10 | If the user enters a date that is too short in length, the system wont accept the value, prompting what format it wants the date to be | Date: 26/1 | A message should appear, telling the user what requirement they need to meet to succeed | A message appears telling the user their input is not valid and to enter it in the specified format | Pass | 10 |
| 11 | If the user enters a date that is too long in lenfth, the system wont accept the value, prompting what format it wants the date to be | Date: 26/11/200003 | A message should appear, telling the user what format the date needs to be in to resume | A message appears telling the user their input is too long and to enter it in the specified format | Pass | 11 |
| 12 | If the user enters an invalid day date, the system wont accept the value, telling them what format they want the date to be in | Date: 40/11/2003 | A message should appear, telling the user what format the date needs to be in to resume | A message appears, telling the user what format the date needs to be in, alerting them of their incorrectness | Pass | 12 |
| 13 | If the user enters an invalid month date, the system wont accept the value, telling them what format they want the date to be in | Date: 26/21/2003 | A message should appear, telling the user what format the date needs to be in to resume | A message appears, telling the user what format the date needs to be in, alerting them of their incorrectness | Pass | 13 |
| 14 | If the user enters an null value, the system wont accept the value and will prompt the user what format they want the date to be in | Date: Null | A message should appear, telling the user what format the date needs to be in to resume | A message appears, telling the user what format the date needs to be in, alerting them of their incorrectness | Pass | 14 |
| 15 | If the user enters letters in the date field (but matches the criteria for the month and year), the system wont accept the data and present a message stating the user what requirement needs to be met | Date: ad/11/2003 | A message should appear prompting the user what format the date needs to be in, rejecting the input value | A message appears, telling the user what format the date needs to be in, alerting them of their incorrectness | Pass | 15 |
| 16 | If the user enters letters in the month field (but matches the criteria for the day and year), the system wont accept the data and present a message stating the user what requirement needs to be met | Date: 26/ev/2003 | A message should appear prompting the user what format the month needs to be in, rejecting the input value | A message appears, telling the user what format the month needs to be in, alerting them of their incorrectness | Pass | 16 |
| 17 | If the user enters letters in the year field (but matches the criteria for the day and month), the system won’t accept the data and present a message stating the user what requirement needs to be met | Date: 26/11/2bcp | A message should appear prompting the user what format the year needs to be in, rejecting the input value | A message appears, telling the user what format the year needs to be in, alerting them of their incorrectness | Pass | 17 |
| 18 | When the user enters the date without inserting the ‘/’ between each value (day, month, year), the system should prompt the user what format the date should be in, rejecting the input value received | Date: 26112003 | A message should appear, prompting the user how the date field should look, not accepting the input data | A message appears telling the user their entry is invalid and prompts them to enter it again | Pass | 18 |
| 19 | When the user enters acceptable data folr the date field, the addGender method should be executed (executed within the start metbod), which will prompt the user to enter the gender of the student they wish to register | Date: 26/11/2003 | A message should appear, telling the user to enter a “m” or “f” (which correlates to each gender) | A message appears, telling the user to enter a “m” or “f” | Pass | 19 |
| 21 | If the user tries to enter a digit in the gender field, a message should appear telling the user their entry was invalid (not accepting the data inputted) | Gender: 1 | A message should appear, telling the user which options they must choose from, and it should not accept the input value | A message appears, telling the user which options they must choose from, and it does not accept the input value | Pass | 20 |
| 22 | If the user tries to spell out the entire gender instead of typing the char correlating to the gender, the system will request them to enter “m” or “f” only (not accepting the value) | Gender: Male | A message should appear, telling the user which options they must choose from, and it should not accept the input value | A message appears, telling the user which options they must choose from, and it does not accept the input value | Pass | 21 |
| 23 | If the user enters a null value, the system will tell them they must enter a value (“m” or “f”), and it should not accept the value | Gender: NULL | A message should appear, telling the user which options they must choose from, and it should not accept the null value | A message appears, telling the user which options they must choose from, and it does not accept the null value | Pass | 22 |
| 24 | If the user does not pass the criteria for the students study mode field, the system will not accept the value and will request them to try again (The value entered is not FT or PT) | Mode: P | A message should appear telling the user their input is incorrect and prompt them to enter again | Value is not accepted and the user is prompted to try again | Pass | 24 |
| 25 | Test that the addMode method works, and stores the study mode entered, and sets it (If the value entered matches the criteria) | Mode: PT | The study mode should be passed through the constructor and the value is saved | Study mode is passes through the parameter and is saved | Pass | 25 |
| 27 | Test that the addGender method works, and stores the gender entered, and sets it (If the value entered matches the criteria) | Gender: m | The gender should be passed through the constructor and the value is saved | Gender is passed through the parameter and is saved | Pass | 23 |
| 28 | If the user does not pass the criteria for the Study Year, the system will not accept the value and will request them to try again (The value entered is not between 1 and 4) | Year: 12 | A message should appear telling the user their input is incorrect and prompt them to enter again | Value is not accepted, and the user is prompted to try again | Pass | 26 |
| 29 | Test that the addYear method works, and stores the year entered, and sets it (If the value entered matches the criteria) | Year: 4 | The year should be passed through the constructor and the value is saved | Year is passed through the parameter and is saved | Pass | 27 |
| 30 | If the user does not pass the criteria for the Modules, the system will not accept the value and will request them to try again (The value entered is not between 1 and 6) | Module: 0 | A message should appear telling the user their input is incorrect and prompt them to enter again | Value is not accepted, and the user is prompted to try again | Pass | 28 |
| 31 | Test that the addModule method works, and stores the module entered, and sets it (If the value entered matches the criteria) | Module: 2 | The module should be passed through the constructor and the value is saved | Module is passed through the parameter and is saved | Pass | 29 |
| 32 | Test that when the user exits the application, the new students (if any was added) and deleted students (if any was deleted), will be written to the StudentDetails textfile | N/A | The details for each student should be written to the StudentDetails text file | The detail for each student is written to the text file | Pass | 30 |
| 33 | Test that when the user exits the application, the course details (generated from the report), will be written to the CourseDetails textfile | Name: Ryan  DOB: 26/11/2003  Gender: m  Study Mode: PT  Year: 2  Modules: 2 | The course details should be written to the course details text file | The detail for the course writes successfully to the textfile | Pass | 31 |
| 34 | When the user deleted a student from the system, it successfully removes them from the textfile when they exit the system | Name: Ryan  DOB: 26/11/2003  Gender: m  Study Mode: PT  Year: 2  Modules: 2 | The student they wish to delete should be deleted from the text file | The student is successfully deleted from the text file | Pass | 32 |
| 35 | When the user inputs a student name that is not enrolled to the course (when the user is trying to find a users details), the system will inform the user they student they are looking for does not exist | Name: Clare | The system should print a message saying the student they were looking for does not exist | The system prints a message saying the student they were looking for does not exist | Pass | 33 |
| 36 | When the user wishes to search for a students details, the system should display all their details using gets | Name: Ryan | The system should print out all of the students details (including the fee) | The system prints out all of the students details | Pass | 34 |
| 38 | When the user inserts the correct value to display the course report, the report should successfully show all statistics required(using the displayReport method), (Total Students, Percentage of Males and Females, Total Part Time and Full Time students) | N/A | The system should print out all of the statistics regarding the course details | The system prints out all of the statistics regarding the course details | Pass | 35 |
| 39 | When the user wishes to exit the program, the program should stop working and writes out the details to the desired text file | N/A | The program should stop running and the text files should be repopulated with new or existing records | The program stops running and the text files is repopulated with new or existing records | Pass | 36 |
| 40 | When the system is started, the students details should be read in from the text file and each value should be passes through the objects parameters, setting the values to be used | N/A | The text file should be read in, and setting each value to their according object | The program reads in the text file successfully and sets the values accordingly | Pass | 34 |
| 41 | When a user tries to register a student, whose name is already existing, the system will prevent that student from being registered and inform the user that there is already a student with that name (As the name is used as a unique identifier as explained in the specification) | Name: Ryan | The name is not accepted, and the system tells the user that the name is already existing with another student | The system informs the user that the name entered is already associated with an existing student | Pass | 37 |
| 42 | When a student is added, their tuition fee should be calculated and displayed | Study Mode: PT  Module: 2 | The tuition fee should be calculated depending on the users study mode, and then printed out to the user. The value should also be written to the text file when the application is exited | The tuition is calculated printed out to the user and written to the studentDetails text file. | Pass | 29 |
| 43 | When a new student is added to the course or deleted, the course details text file should be updated (As it may change the number of PT/Ft students or the Total Number of students/ total Male or Females | ADD STUDENT  Name: Janie  DOB: 11/01/2000  Gender: f  Study Mode: PT  Year: 2  Modules: 1 | The course details should be updated within the textfile | The course details are updated within the textfile | Pass | 38 |

**Supporting Evidence:**

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| Evidence ID | Evidence Image |
| 1 | Graphical user interface, text, application, email  Description automatically generated |
| 2 | Graphical user interface, text, application, email  Description automatically generated |
| 3 | Graphical user interface, text, application, email  Description automatically generated |
| 4 | Graphical user interface, text, application, email  Description automatically generated |
| 5 | Graphical user interface, text, application, email  Description automatically generated  Text  Description automatically generated with medium confidence |
| 6 | Graphical user interface, text, application, email  Description automatically generated |
| 7 | Graphical user interface, text, application, email  Description automatically generated |
| 8 | Graphical user interface, text, application, email  Description automatically generated |
| 9 | Graphical user interface, text, application, email  Description automatically generated |
| 10 | Graphical user interface, text, application, email  Description automatically generated |
| 11 | Graphical user interface, text, application, email  Description automatically generated |
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| 20 | Graphical user interface, text, application, email  Description automatically generated |
| 21 | Graphical user interface, text, application, email  Description automatically generated |
| 22 | Graphical user interface, text, application, email  Description automatically generated |
| 23 | Graphical user interface, text, application, email  Description automatically generated |
| 24 | Graphical user interface, text  Description automatically generated with medium confidence |
| 25 | Graphical user interface, text, application, email  Description automatically generated |
| 26 | Graphical user interface, text, application, email  Description automatically generated |
| 27 | Graphical user interface, text, application, email  Description automatically generated |
| 28 | Graphical user interface, text, application  Description automatically generated |
| 29 | Graphical user interface, text, application, email  Description automatically generated |
| 30 | Text  Description automatically generated |
| 31 | Graphical user interface, text  Description automatically generated |
| 32 | Graphical user interface, application, Teams  Description automatically generated |
| 33 | Graphical user interface, text, application, email  Description automatically generated  Text  Description automatically generated |
| 34 | Graphical user interface, text, application, email  Description automatically generated  Text  Description automatically generated |
| 35 | Text, table  Description automatically generated with medium confidence  Text  Description automatically generated |
| 36 | Graphical user interface, text, application, email  Description automatically generated |
| 37 | Graphical user interface, text, application, email  Description automatically generated  Text  Description automatically generated |
| 38 | Graphical user interface, text, email  Description automatically generated  Text  Description automatically generated  Graphical user interface, text, application  Description automatically generated |

Test Class Result:

Graphical user interface, text, application, email

Description automatically generated

Summary Table:

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| --- | --- | --- | --- |
| **Requirement** | **Implemented (Yes/No)** | **Filename** | **Relevant Line of Code** |
| Ability to pre-populate the application with any previously store data | Yes | StudentManager.java | 698-755 |
| Ability to compute the tuition fee for each student | Yes | PT.java, FT.java, StudentManager.java | FT: 22-34  PT: 26-31  StudentManager: 458-487 |
| Report the details of the course on the screen | Yes | StudentManager.java | 757-781  787-891 (Contains methods used in lines 757-781 to help produce the course report such as calculating total PT, FT, Males and Females) |
| Ability to add a new student to the course | Yes | StudentManager.java | 380-493  35-336 (Contains methods used to help validate each field to allow the student to be added successfully) |
| Ability to delete a student from the course. | Yes | StudentManager.java | 496-587 |
| Ability to search for a student by name and display the details on screen | Yes | StudentManager.java | 590-629 |
| Changes stored and written to the desired text file | Yes | StudentManager.java | 920-996 |
| The application must allow for up to a maximum of 20 students to be enrolled on the course. | Yes | StudentMain.java, StudentManager.java | StudentMain: 23-24  StudentManager: 394-418 |