Program Exception Handle Explanation

* Is this the first time launching this program? [y/n]
  1. If entered “y” or “n” proceeds to the next prompt
  2. If entered something other than “y” or “n” loops back and asks the question again.
* If entered “n”:
  1. Are you a student or an admin[S/A}
     1. If entered “S”, Asks the User to enter Student username and password
        1. If the Student was not originally registered in the System by the Admin, it will exit program. And the program will print “Login failed. You have entered the wrong username and password.”
        2. If the Student enters the correct username and password originally registered by the Admin, the program will proceed and ask to choose operation between 1~6
           1. If Student entered a number that is not between 1~6, the program will print out “not a valid choice” and loops back to the prompt above.
           2. If Student entered 3(register in a course section), two exceptions are handled. If the course is full, the program will print out "The course is full!". The program also catches the case which the student is already registered in the course section. If the user enters non-numeric value for section number, the program will catch NumberFormatException. For all three cases, the program will loop back to the prompt.
           3. If Student entered 4(withdraw from a course section), two exceptions are handled. If the user entered a non-numeric value for section number, the program will catch NumberFormatException. The program also catches the case where the student entered course id and section number of course section in which the student is not registered to. For all two cases, the program will loop back to the prompt.
     2. If entered “A”, Asks the User to enter Admin username and password
        1. If the user enters the correct(given) username and password(Admin/Admin001), program proceeds to the next prompt. The prompt asks the user whether Admin wants to see Course Management or Report[C/R]
           1. If Admin entered value other than “C” or “R,” the program will print “[entered value] is not a valid choice.” And program loops back to the prompt above.
           2. If Admin entered “C”, the program will ask to choose operation between 1~7:

If Admin entered a number that is not between 1~7, the program will print out “not a valid choice” and loops back to the prompt above.

If Admin chooses 1 to create new course section, the program catches one exception. If the new course section has same section number and course id as another course section already registered in the system, the program will print "Failed to register. Course Section with that course id and section number already exists."

If Admin chooses 2 to delete a course section, the program catches two exceptions. If the Admin entered a non-numeric value for section number, the program will catch NumberFormatException. If the course Id and course section number that admin entered do not have match in the Course ArrayList, the program , the program catches the error and loops back to the prompt above.

If Admin chooses 3, the program catches several exceptions. If the Admin entered a non-numeric value for section number, the program will catch NumberFormatException. The program also catches the case when the admin entered section number and course Id that do not match any of the course sections in the course section arraylist. If Admin enters correct course id and section, the program moves into another loop.

New Maximum number → NumberFormatException

For new section number, if Admin enters a non-numeric word, the program catches NumberFormatException. If the newly entered section number has a match to a course section that has same course id and section number, the program loops back.

If Admin chooses 4 and enters a non-numeric value for section number, the program will catch NumberFormatException.

If Admin chooses 5, the program catches the case where Admin tries to register a new student with already existing username.

* + - * 1. If Admin entered “R”, the program will ask to choose operation between 1~8:

If Admin entered a number that is not between 1~8, the program will print out “not a valid choice” and loops back to the prompt above.

If Admin chooses 4 and enters a non-numeric value for section number, the program will catch NumberFormatException. The program will print "Course with that course id and section number does not exist!” if there are no matches for the given course id and section number.

If Admin chooses 5, the program asks admin to enter username of student. If entered username does not exist in the system, the program loops back.

* + - 1. If the user enters incorrect Admin username and password, program prints out “Login Failed. You have entered the wrong username and password”. And program exits.
    1. If entered something other than “S” or “A”, prints out [entered word] is not a valid choice. And loops back to the prompt.
  1. If the binary file named ‘data.ser’ is not found(FileNotFoundException), ends the program. So if the user never used the program before and accidentally said “no”, it ends the program. Program prints out “Binary file named 'data.ser' not found. Please launch with csv seed file.”
* If entered “y”:
  1. Asks the user, “Please enter relative path of the csv seed file: “
     1. If entered the correct relative path of the csv seed file,
     2. If entered an non-existing relative path, prints out “[entered path] was not found.” And program exits.
  2. The rest of the processes will be same as above.