**Membership Application**

**Scenario**

You have been provided with an executable application (Membership.exe) which allows the user to enter member details for a sports club.

The data file created by the application is an append file and must be opened as filename.txt. The file must be opened before data can be entered, validated or saved. The records are written to the file in text format with each individual field as string data terminated with a carriage return. The file can be opened, read and printed using a text editor e.g. Notepad.

This application needs to be tested according to the requirements set out below. You should examine the requirements and application, then design and implement the testing necessary.

The software specification requires validation to be performed on the input as shown below.

**Field Validation**

|  |  |
| --- | --- |
| Membership Number | Not spaces, valid modulus 11, must be 6 digits, numeric. |
| First Name | None. |
| Last Name | None. |
| Address | None. |
| Postcode | None. |
| Gender | M or F *(Upper or lower case allowed).* |
| Join Date | dd/mm/yyyy, full date check. |
| Type of Membership | F, S, T or B *(Upper or lower case allowed).* |
| Subscription Due Month | MMM *(e.g. Jan)* |

The error messages expected from the application are specified as shown in the table below.

|  |  |
| --- | --- |
| **Error Number** | **Error Message** |
| 1 | 1: Membership Number is not numeric |
| 2 | 2: Membership Number is not 6 digits |
| 3 | 3: Membership Number is not a valid modulus 11 number |
| 4 | 4: Gender must be F or M |
| 5 | 5: Membership type must be F, S, T or B |
| 6 | 6: Invalid Join Date |
| 7 | 7: File not open *- (i.e., you haven’t opened it yet)* |
| 8 | 8: File not opened *- (i.e., it can’t be opened)* |
| 9 | 9: Subscription month invalid |

You will notice that the application also provides the option of printing out the members details.  The data file must be opened before the **Print Records** menu option is selected on the menu. The print layout for the printed records is shown on the next page.

Member Records

Page             Z9

                                                                                                                    99/99/9999

Number   First                        Last                       Address                        Gender                Join          Type            Subs

                 Name                     Name                                                                                                         Date    Month

999999    XXXXXXXXXXX    XXXXXXXXXXX    XXXXXXXXXXXXXXXXXXXXXX         X                     99/99/99             X                 XXX

                                                                             XXXXXXXXXXXXXXXXXXXXXX

                                                                             XXXXXXXXXXXXXXXXXXXXXX

                                                                             XXXXXXXXXX

999999    XXXXXXXXXXX    XXXXXXXXXXX    XXXXXXXXXXXXXXXXXXXXXX         X                     99/99/99               X                 XXX

                                                                             XXXXXXXXXXXXXXXXXXXXXX

                                                                              XXXXXXXXXXXXXXXXXXXXXX

                                                                               XXXXXXXXXX

Where ‘9’ stands for numeric data, ‘X’ stands for alphanumeric data and ‘Z’ stands for zero suppression e.g. Z9 would represent the data 01 as 1. Ten records must be printed per page and then a new page thrown with a heading.

A green member form with white squares

Description automatically generated



