# Program Testing

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| **Action to test** | **Actions Taken** | **Expected Outcome** | **Actual Outcome** | **Pass/Fail** |
| Maximum of 100 records to be stored | Attempting to enter a new record when there are already 100 stored | Error message (“You have entered the maximum amount of transactions; new ones cannot be stored”) and inability to enter new record | Error message (“You have entered the maximum amount of transactions; new ones cannot be stored”) and inability to enter new record | Pass |
| Maximum of 100 records to be stored | Attempting to enter a new record when there are 99 records stored | Successful entering of record | Successful entering of record | Pass |
| For each spending event, the date, category, recipient, and amount of money spent should be recorded | Creating a record with date, category, recipient, and amount of money spent | Successful entering of record | Successful entering of record | Pass |
| Should allow the user to enter the date in the format “dd/mm/yyyy” | Creating a new record with the date in the format “dd/mm/yyyy” | Successful entering of record | Successful entering of record | Pass |
| Date should be recorded as yyyymmdd to facilitate date checking | Creating a new record with the date in the format “dd/mm/yyyy” | Date should be stored in the form yyyymmdd | Date is stored in the form yyyymmdd | Pass |
| Category must be from a pre-defined list | Creating a new record with the category of “1” (Rent) | Successful entering of record | Successful entering of record | Pass |

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| Category must be from a pre-defined list | Creating a new record with the category “11” (Not on the list) | Error message and a prompt to re-enter the category with an option from the list | Error message and a prompt to re-enter the category with an option from the list | Pass |
| Program needs to be enable new transactions to be added to the log | Creating a new record | Record is stored in a text file and can be used in reports immediately and is loaded the next time the program is used | Record is stored in a text file and can be used in reports immediately and is loaded the next time the program is used | Pass |
| Must be possible to print to the screen the amount of money spent between two supplied dates | Using the report menu to generate a report displaying the amount of money spent between two supplied dates | The amount of money spent between the two entered dates should be displayed on the screen | The amount of money spent between the two entered dates is displayed on the screen | Pass |
| Creating a report of amount of money spent between two supplied dates where there was no money spent | Using the report menu to generate a report displaying the amount of money spent between two supplied dates where no transactions occurred | Amount of money spent should be £0.00 | Amount of money spent is £0.00 | Pass |
| Must be possible to print to the screen the amount spent on a given category between two supplied dates | Using the report menu to generate a report displaying the amount of money spent between two supplied dates in a specified category | The amount of money spent between the two entered dates on the specified category should be displayed on the screen | The amount of money spent between the two entered dates on the specified category is displayed on the screen | Pass |
| Creating a report of amount of money spent in a specific category between two supplied dates where there was no money spent | Using the report menu to generate a report displaying the amount of money spent on a specific category between two supplied dates where no transactions occurred | Amount of money spent should be £0.00 | Amount of money spent is £0.00 | Pass |
| Must be possible to print to the screen a list of all transaction records between any two supplied dates | Using the report menu to generate a report displaying a list of transactions that took place between two supplied dates | A list of transactions that took place between the two supplied dates should be displayed on the screen | A list of transactions that took place between the two supplied dates is displayed on the screen | Pass |
| Creating a report of transactions that occurred between two specific dates where no transactions occurred | Using the report menu to generate a report displaying a list of transactions that took place between two supplied dates where no transactions occurred | Should display “None found” | Displays “None found” | Pass |

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| Must be possible to print to the screen a list of transactions that took place between two supplied dates to a given recipient | Using the report menu to generate a report displaying a list of transactions that took place between two supplied dates that were to a given recipient | A list of transactions that took place between the two supplied dates and were to the specified recipient should be displayed on the screen | A list of transactions that took place between the two supplied dates and were to the specified recipient is displayed on the screen | Pass |
| Creating a report of transactions that were made to a specific recipient between two specific dates where no transactions occurred | Using the report menu to generate a report displaying a list of transactions that were made to a specific recipient between two specific dates where no transactions occurred | Should display “None found” | Displays “None found” | Pass |
| When the details of a new transaction have been entered the new record should be appended to the existing stored records in a text file called TransactionDetails.txt | Creating a new record when there are already records stored | New record should be added to the bottom of the text file (TransactionDetails.txt) that contains the other records | New record is added to the bottom of the text file (called TransactionDetails.txt) that contains the other records | Pass |
| Blank records should not be stored to disk | Adding a new record when there are already 4 records stored | There should only be 5 records stored in the text file (i.e. no blank records) | There are only 5 records stored in the text file (i.e. no blank records) | Pass |
| If any fields within a transaction are blank, then that transaction is invalid and should not be written to disk | Adding a new record but not including the date | Inability to enter record | Inability to enter record (cannot proceed through menu until a date is entered) | Pass |
| If any fields within a transaction are blank, then that transaction is invalid and should not be written to disk | Adding a new record but not including the category | Inability to enter record | Inability to enter record (cannot proceed through menu until a category is entered) | Pass |

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| If any fields within a transaction are blank, then that transaction is invalid and should not be written to disk | Adding a new record but not including the recipient | Error message and a prompt to enter a valid name should appear | Error message and a prompt to enter a valid name appears (cannot proceed through menu until a valid name is entered) | Pass |
| If any fields within a transaction are blank, then that transaction is invalid and should not be written to disk | Adding a new record but not including the amount | Inability to enter record | Inability to enter record (cannot proceed through menu until an amount is entered) | Pass |
| When the program is started it should read from the text file TransactionDetails.txt to populate the application with previously stored transaction data | Loading the application with data stored in the text file then running a report to see if the data is available | Records should be used in the report (i.e. they have been loaded successfully) | Records are used in the report (i.e. they have been loaded successfully) | Pass |
| The program must employ a console interface only | Loading the application | No GUI should appear, only the console interface | No GUI appears, only the console interface | Pass |