

USER MANUAL

December 2019

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1. GENERAL INFORMATION

1.1 System Overview

Dublin Bill Management Company is a start-up that offers its users the ability to manage their utility bills. Their services include tracking for electricity, gas and utility bills. The product, **bill_manager**, is a Python-based command line interface that records all customers bills together with a menu to generate queries and reports that can be run against this data.

The database containing all customer information is labelled as **bills.csv** and is located within the same directory as the code itself. In order to use the application, please run it from within Anaconda's Spyder IDE.

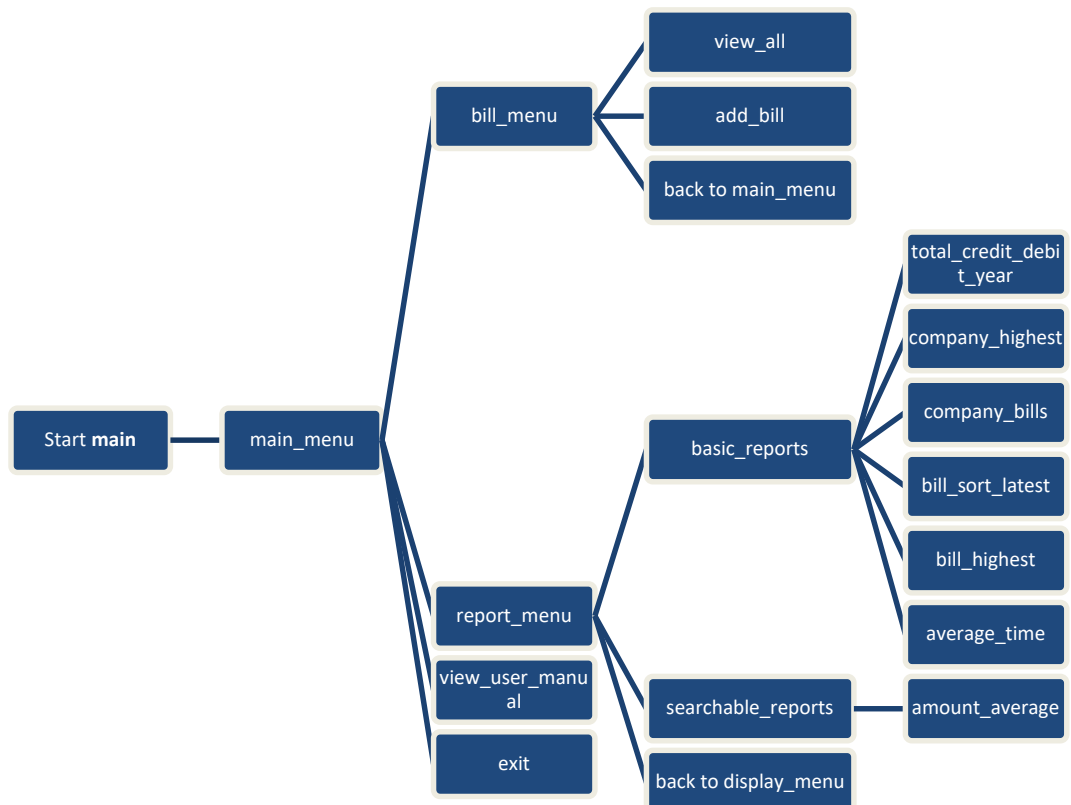
2. SYSTEM FEATURES

2.1 User Flow

The following graph shows the user interaction path while using the application. The main() function loads the main_menu() function which then opens the following 4 submenus to the user: bill_menu(), report_menu(), view_user_manual() – this file – and exit from the application.

The bill submenu allows the user the following 3 options: view all bills, add a new bill and return to the main menu.

The reports submenu offers the user a range of reports to choose from, each are explained under the menu as well as the ability to go back to the main menu.



2.2 Bills

Just like with bills with most utility companies, the user will only have the ability to view bills and add new ones. The feature to modify already present bills or delete them will not be implemented for the current version as it was not requested by Dublin Bill Management Company. The user however, can open the (modified) file from the working directory and make adjustments like deletion of incorrect data) on the text file as a work around if necessary.

2.2.1 View bills

The utility bills will be displayed in the following format:

COMPANY NAME	CUSTOMER FULL NAME	YEAR	MONTH	DAY BILLED	AMOUNT (IN EUR)	CREDIT/DEBIT
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User can return to the bills submenu by entering „H” and even add new bills from there. If they wish to return to the main menu, they need to input the relevant option and exit the application from the main menu.

2.2.2 Add new bills

User can add new bills to the database and they can view these changes by going back to the Bills submenu with „H” and selecting View Bills again. If they wish to return to the main menu, they need to input the relevant option and exit the application from the main menu.

2.3 Reports

The application has 7 reports, out of which 6 are read-only and the last one can be searched by the user based on certain criteria:

1. List the total credited and debited for each year.
2. List the total number of bills linked to each utility company, showing their success rate.
3. Show the most popular utility company, based on the highest number of bills linked to them.
4. Show all bills in descending order, i.e.: showing latest first.
5. Show the highest amount of credit and debit for a bill.
6. Show the average time between all bills.
7. User-input-based: The user inputs the start and end dates between 2 bills and the application shows the average amount spent per period of time.

The user will always be returned to the reports submenu by entering „H”. If they wish to return to the main menu, they need to input the relevant option and exit the application from the main menu.