**ICT167 - Principles of Computer Science**

horizontal line

# Placeholder image

# 

Assignment 1: Program Documentation

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10th October, 2018

## 

## Main Menu

### Purpose

Allows the user to select the desired program they wish to run.

### How to Use

User selects option presented in the table to run the desired program.

|  |
| --- |
| ======================================= OPTIONS ======================================= 1 - Question 1 2 - Question 2 ======================================= Please enter option: |

If an invalid entry is entered, main menu will prompt the user to re-enter the desired option.

|  |
| --- |
| Invalid Entry please try again Please enter option: |

Once the program has terminated, the main menu will prompt whether the user wants to run a different program.

|  |
| --- |
| End of Program... Would you like to select a different option? [Y]/n |

### Limitations

The main menu is not dynamic enough to import all child packages and therefore must be configured manually to accept additional options. Would be better if the program offered a GUI instead of a command line interface.

## 

## Question 1

### Purpose

This program is designed to allow the user to record survey information involving a television program. User will enter the Gender, whether the person watches the show regularly and the age of the applicant and present basic statistical information such as the percentage of males and females that watch the show as well as the percentage of males/ females that are above the age of 30 (configurable) who watch the show.

### How to Use

User will enter the participants information once at a time once they have been prompted by the following commands.

|  |
| --- |
| Please enter the person's age (1...110):  Please enter the person's gender (M/F):  Please enter whether the person watches the show regularly [y/n] |

Once they have completed entering the details of each person, they will be prompted if they want to add the details of an additional person or if they would like to continue.

|  |
| --- |
| Do you want to enter another person's details? [Y]/n |

Once they have completed entering the details of all persons, program will display the following statistical information:-

|  |
| --- |
| The total number of people surveyed = 1 The number of people who watch the show regularly = 0 The percentage of those who watch the show regularly = 0  --------------------------------------------------------- Gender Under 30 30 or Over Total --------------------------------------------------------- Female 0.00 0.00 0.00 Male 0.00 100.00 100.00 --------------------------------------------------------- Total 0.00 100.00 100.00 |

Finally, the user will be prompted the following message to query whether to restart the program:-

Would you like to restart? y/[N]

### Limitations

Data is not being captured in a database for future reference. Not enough metrics are being captured for accurate analysis and it would be much more useful if the user was able to upload a .csv file instead of entering the information manually. More advanced methods of data collection could be setting up a web API to automatically gather user information based on an anonymous survey offered to the users via email.

## 

## Question 2

### Purpose

Simple Hangman game that can be played with multiple players. Once the game ends the total number of points will be calculated and players will be ranked. Has no other purpose other than for entertainment.

### How to Use

Player 1 and 2 select desired names via the following prompts.

|  |
| --- |
| Enter player name:  Jack Enter player name:  James |

Multiple players are also able to be selected via the following prompt

|  |
| --- |
| Add new player? y/[N] |

The first player will enter a secret phrase. After that, the screen will clear

|  |
| --- |
| Jack, please enter the secret phrase:  <clear screen> |

Players will take turns either guessing a character and the entire string

|  |
| --- |
| <????? ?????> James please enter a guess: a   Current Guesses = a <????? ?????>  James please enter a guess: |

The player that is able to guess the correct string will receive an additional number of points calculated based on the number of guesses.

|  |
| --- |
| James please enter a guess:  hello world  Game has been won! James, please enter the secret phrase: |

The next player will be allowed to provide the following secret phrase and the game repeats until everyone has received a turn. Once the round has been completed, players will be able to play additional rounds or end the game

|  |
| --- |
| Game has been won! Would you like to play another game? [Y]/n |

The score will appear in the table below

|  |
| --- |
| Jack has won the game!   ------------------------------- Player | Score ------------------------------- Jack | 499 James | 498 ------------------------------- |

Finally, players will be given a chance to repeat the entire game if they want to.

Would you like to restart? y/[N]

### Limitations

Game point system is highly flawed and needs additional work in order to be considered fair. Could use a web or application GUI instead of a command line interface. Should have a spell checker or function to save new phrases to an external database for single player mode. Maybe have point system tied in with some time limit or with some global high score system. Otherwise a small game that would not be considered too serious.