

Batch 141
CS101 Project
Stage II Report
Who Wants To Be A Millionaire

Introduction:

This project aims to develop a simulation of the famous gameshow “Who Wants To Be Millionaire” using C++ and EzWindows.

Rules of the Game:

In this game, there is a specified set of amounts leading finally to \$ 1 million. Each one of the amounts is to be won by answering a question correctly. Each question has 4 options of which one is the correct answer. There is a time limit for each question which is 1 minute for amounts upto \$32,000 and 1 minute 30 seconds for those greater than or equal to \$32,000.

There are two safe zone amounts namely, \$1000 and \$32000. If the player answers any question wrong at a position above the safe zone amounts, he will win the safe zone amount only. He also has an option to quit at any point if he does not know the answer and take the amount which he has previously won. Also he is provided with three lifelines:

(a)50-50: Two wrong options will be erased and the user has to choose between two options only.

(b)Flip: The question will be changed and the user has to answer this now.

(c)Time Increase: The time given for the specified question will be increased by 30 seconds.

Each lifeline can be used only once.

For all of these the player has to make use of the mouse, by clicking on it.

The Coding :

(a)Header files:

- i) iostream :for standard I/O functions
- ii) cstring :for string functions
- iii) fstream :for file-handling
- iv) ctime :for generating seed for random function
- v) ezwin.h :for generating the graphics part

(b)Functions used:

i)int ActionC()

This function is called when the option clicked is correct.In this function,codes have been written to color the correct answer green,increment the question number index, print the next question onto the terminal and also change the position of the pointer. We also show a message box showing the amount won and amount for the next question.

ii)int ActionW()

This function is called when the option clicked is wrong.In this function codes have been written to color the wrong answer(i.e. the clicked answer) in red and the correct answer in green.We also show a message box showing the amount won.Then the window is closed.

iii)MouseClickedCallback(MouseClick)

This function checks the position where the mouse is clicked and implements the required action.

iv)timer

We have made use of the SetTimerCallback function and called a timer function(written by us) after every 1 second to display the time remaining for the question.

(c)Implementation of lifelines:

The images of the lifelines have been displayed on the screen and the user has to click them to make use of them.

Status of completion:

The project has been completed successfully in an executable condition with a good number of questions in the Question Bank.

Ideas for future work:

Some of the features which we wanted to implement but could not due to unavailability of features in EzWindows:

- Playing sounds in the background
- After the game ends we wanted to show some animation

And some more which couldn't be done because of time constraint:

- Giving an option to restart or exit after the game ends
- Showing a menu at the start asking the user to select from different levels of difficulty
- Making the game look more attractive!!

Brief Description of Works:

1. 110040071 – Did lot of testing and reported bugs, made 2nd stage report along with Chaitanya, wrote codes for getting question into structure.
2. 110040101 – Wrote question document, converted bitmaps to xpm format, tried to write codes for parts of mouseclick function but had lot of errors, helped mashal with 2nd stage report.
3. 110040091 – Code for arrow movement, designed basic GUI, tried code for ActionC, but had lot of errors.
4. 110040110 – Wrote timer using sleep, had to be completely changed as the whole program execution got stopped; made bitmaps for some lifelines and option boxes; helped in stage 1 report
5. 115090001 – Did nothing.
6. 11D260011 – Did most of the coding – defined ActionC, ActionW, MouseClick functions, changed the timer function, wrote codes for displaying questions on to terminal, codes for execution of lifelines, helped in stage 1 report.

Consolidated Diary

Roll No	Discussion	Design	Coding	Testing	Documentation	Misc.
110040071	3:30	1:00	5:30	2:00	1:30	2:00
110040101	5:30	1:00	3:00	0	1:30	3:00
110040110	3:30	1:00	6:30	0	1:30	4:00
110040091	5:15	1:30	6:00	0	0	7:00
11D260011	5:00	1:00	10:00	0	1:30	6:30
115090001	0	0	0	0	0	0

Acknowledgement

This whole journey of “C++ Project” was a great learning experience.

This learning was not only the familiarity of codes but was full with plethora of teamwork, professionalism, leadership, working under time constraints.

The self-evaluation was actually a well-compromised method of marking which had a effect in the markings to a great extent.

And finally grand accolades to **DR. DEEPAK .B. PHATAK** for organizing such enthusiastic and a wonderful project work!!!