

COME 202 OBJECT ORIENTED PROGRAMMING 2

GUESSING GAME C++

GROUP MEMBERS:

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YOUTUBE LINK: <https://www.youtube.com/watch?v=fdebkWDnYs4>

General concept of the guessing game is computer picks a random number or an alphabet in a certain range and player tries to guess the number or the alphabet. Player enters their guesses and computer provides feedbacks like “too low” or “too high”. Player keeps guessing until they guessed right or they don’t have a chance anymore.

Game displays a menu with five options: guessing a number, guessing an alphabet, showing the high score, displaying credits, or quitting the game. If you choose to guess a number, the game will randomly generate a number, and you will be given a certain number of tries to guess it. The game will tell you if your guess is too high or too low, and you can continue guessing until you either guess the correct number or run out of tries. If you choose to guess an alphabet, the game will randomly generate a lowercase letter of the alphabet, and you will be given a certain number of tries to guess it. The game will tell you if your 2 guess is too early or too late in the alphabet, and you can continue guessing until you either guess the correct letter or run out of tries. After you finish a game, you will have the option to play again or return to the main menu. If you choose to show the high score, the game will display the best scores for both the number guessing and alphabet guessing games. If you haven't played a game yet, it will show that you haven't set a high score yet. If you choose to display credits, the game will show who developed it. If you choose to quit the game, it will end the program.

First, when starting the program, a menu with 5 options opens as in the figure and you can select the option you want.

```
*
MENU
---
1.Guess the number
2.Guess the alphabet
3.Hight Score
4.Credit
5.Exit
Enter your choice:
===>
```

We choose our first option and a number guessing game with 3 difficulty levels opens before us.

```
Enter your choice:
===>1
Choose your difficulty level
1.Easy
2.Medium
3.Hard
4.Return to main menu
===>
```

When we choose the first difficulty level, the game gives us 5 guesses to predict a number between 1 and 15 and gives feedback on our closeness to the number. At the end of the game, you can continue playing the game by selecting the difficulty level again, or you can return to the menu by selecting Option 4.

```

===>1
***INSTRUCTIONS***
1.Guess the number based on given range.
2.You are allowed to make one guess at a time.
3.Once you have used up all your chances, you lose the game.
Guess the number which is between 1 to 15. You have 5 chances to try.
===>10
Your guess is to high.
4 choices left.
===>5
Your guess is to high.
3 choices left.
===>6
Your guess is to high.
2 choices left.
===>3
Your guess is too low.
1 choices left.
===>4
You won. Congratulations! You got it in5tries.
***

```

When we choose the second difficulty level, the game gives us 4 guesses to predict a number between 1 and 20, also it gives us feedback about our closeness to the number like the first option. At the end of the game, you can continue playing the game by selecting the difficulty level again, or you can return to the menu by selecting Option 4.

```

===>2
***INSTRUCTIONS***
1.Guess the number based on given range.
2.You are allowed to make one guess at a time.
3.Once you have used up all your chances, you lose the game.
Guess the number between 1 to 20. You have 4 chances to try.
===>10
Your guess is too low.
3 choices left.
===>13
Your guess is too low.
2 choices left.
===>14
Your guess is too low.
1 choices left.
===>15
Your guess is too low.
0 choices left.
===>You lost. The number was:17
***

```

When we choose the third difficulty level, the game gives us 3 guesses to predict the number which is between 1 to 100. At the end of the game, you can continue playing the game by selecting the difficulty level again, or you can return to the menu by selecting Option 4.

```

==>3
***INSTRUCTIONS***
1.Guess the number based on given range.
2.You are allowed to make one guess at a time.
3.Once you have used up all your chances, you lose the game.
Guess the number between 1 to 100.
You have 3 chances to try.==>50
Your guess is too high.
2 choices left.
==>40
Your guess is too high.
1 choices left.
==>20
Your guess is too high.
0 choices left.
==>You lost. The number was:1
***

```

Here begins another game. We choose our second option and an alphabet guessing game with difficulty level opens before us. When we choose the first difficulty level, the game gives us 2 guesses and also gives feedback on our closeness to the guessed letter. At the end of the game, you can continue playing the game by selecting the difficulty level again, or you can return to the menu by selecting Option.

```

==>2
Choose your difficulty level
1.Easy
2.Medium
3.Hard
4.Return to main menu.
==>1
**INSTRUCTIONS**
1.Guess the letter based on given range.
2.You are allowed to make one guess at a time.
3.Once you have used up all your chances, you lose the game.
Guess the vowel letter. You have 2 chances to try.
k
Your guess is too high.
1 choices left.
==>d
Your guess is too low.
0 choices left.
==>You lost. The letter was:e
*

```

When we choose the second difficulty level, the game gives us 5 guesses, also gives us feedback about our proximity to the letter like the first option. At the end of the

game, you can continue playing the game by selecting the difficulty level again, or you can return to the menu by selecting Option 4

```
**INSTRUCTIONS**
1. Guess the letter based on given range.
2. You are allowed to make one guess at a time.
3. Once you have used up all your chances, you lose the game.
Guess the consonant letter. You have 5 chances to try.
k
Your guess is too high.
3 choices left.
==>d
Your guess is too high.
2 choices left.
==>b
Your guess is too low.
1 choices left.
==>c
You won! Congratulations! You got it in 4 tries
*
MENU
```

When we choose the third difficulty level, the game gives us 5 guesses. At the end of the game, you can continue playing the game by selecting the difficulty level again, or you can return to the menu by selecting Option 4.

```
==>3
**INSTRUCTIONS**
1. Guess the letter based on given range.
2. You are allowed to make one guess at a time.
3. Once you have used up all your chances, you lose the game.
Guess the alphabet between a to z. You have 5 chances to try.
y
Your guess is too high.
4 choices left.
==>u
You won! Congratulations! You got it in 2 tries
*
MENU
```

You can see the highest scores from previous games by selecting Option 3 in the main menu.

```
MENU
---
1.Guess the number
2.Guess the alphabet
3.Hight Score
4.Credit
5.Exit
Enter your choice:
==>3
Your high score in guessing number as an attempt is:1
Your high score in guessing alphabet as an attempt is:2
***
```

You can see who developed this game by selecting Option 4 in the main menu.

```
==>4
Student names and numbers:
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Course of study: Object Oriented Programming 2
*
```

And finally, if you choose Option 5 in the main menu, you will exit the game directly.

```
==>5
Goodbye
```