**CMSC 203**

**Project#1**

ESP (extrasensory perception)

**Assignment Description**

Write a program that tests your ESP (extrasensory perception).

1. The program should display the following menu:
   1. read and display on the screen the first 16 names of colors from a file colors.txt, so the player can select one of them names of colors.
   2. read and display on the screen the first 10 names of colors from a file colors.txt, so the player can select one of them names of colors.
   3. read and display on the screen the first 5 names of colors from a file colors.txt, so the player can select one of them names of colors.
   4. Exit form a program
2. Users should select one of the options.
3. The program should read and display on the screen the names of colors from a file colors.txt, so the player can select one of them names of colors.
4. The program should randomly select the name of a color from list of words in a file colors.txt (see attachment).

To select a word, the program should generate a random number from 1 to 16.

For example, if the number is 1, the selected word is black, if the number is 2, the selected word is white, and so forth.

1. The program should ask the user to enter the color that the computer has selected. After the user has entered his or her guess, the program should display the name of the randomly selected color. The program should repeat these 3 times and then display the number of times the user correctly guessed the selected color.
2. The program that asks a student for his or her name, and then asks the student to enter a sentence that describes him or herself and Due Date in a format MM/DD/YY.
3. Once the user has entered the requested input, the program should display this information at the end of the program.
4. When Game is over, The program also should write the following information to the screen and output file EspGameResults.txt, for example:  
   Game Over

You guessed 2 out of 3 colors correctly.

Due Date: 02/10

Username: Edward Platt

User Description: I am a CMSC203 student with a major in Computer Science

Date: 02/10

1. **.**

**Requirements**

1. You are required to run the application from the command line and from an IDE (like Eclipse).
2. [Input and validate the name of a color from user.](http://www.java2s.com/example/java/regular-expressions/input-and-validate-data-from-user-using-regular-expression.html)
3. Take screenshots of two runs of your program with different inputs, one from the command line and one from your IDE.
4. You are not allowed to use arrays **or Arraylist** in this program.
5. You are not allowed to use any methods except main ()in this program**.**
6. Use java constants for number and String literals, for example:

**final** String COLOR\_RED = "Black";

1. The Java class name is ESPGame and the file name is ESPGame.java.

**Concepts Covered**

1. Java fundamentals,
2. Input from keyboard using Scanner.
3. Read from a file.
4. Decision structures (switch or if/else).
5. Loops (while, do-while, or for).
6. Command-line processing.
7. Input Validation.

**Examples/Sample Runs**

CMSC203 Assignment1: Test your ESP skills!

Welcome to ESP - extrasensory perception!

Would you please choose one of the 4 options from the menu:

1. read and display on the screen first 16 names of colors from a file colors.txt, so the player can select one of them names of colors.
2. read and display on the screen first 10 names of colors from a file colors.txt, so the player can select one of them names of colors.
3. read and display on the screen first 5 names of colors from a file colors.txt, so the player can select one of them names of colors.
4. Exit form a program

Enter the option: 1

Enter the filename: colors.txt

There are sixteen colors from a file:

1 black

2 white

3 gray

4 silver

5 maroon

6 red

7 purple

8 fuchsia

9 green

10 lime

11 olive

12 yellow

13 navy

14 blue

15 teal

16 aqua

Round 1

I am thinking of a color.

Is it one of list of colors above?

Enter your guess:

Black

I was thinking of Black.

Round 2

I am thinking of a color.

Is it one of list of colors above?

Enter your guess:

GrAy

I was thinking of Gray.

Round 3

I am thinking of a color.

Is it one of list of colors above?

Enter your guess:

yellow

I was thinking of Navy.

Game Over

You guessed 2 out of 3 colors correctly.

Would you like to continue a Game? Type Yes/No

Yes

Would you please choose one of the 4 options from the menu:

1. read and display on the screen first 16 names of colors from a file colors.txt, so the player can select one of them names of colors.
2. read and display on the screen first 10 names of colors from a file colors.txt, so the player can select one of them names of colors.
3. read and display on the screen first 5 names of colors from a file colors.txt, so the player can select one of them names of colors.
4. Exit from a program

Enter the option: 2

Enter the filename: colors.txt

There are sixteen colors from a file:

1 black

2 white

3 gray

4 silver

5 maroon

6 red

7 purple

8 fuchsia

9 green

10 lime

Round 1

I am thinking of a color.

Is it one of list of colors above?

Enter your guess:

Black

I was thinking of Black.

Round 2

I am thinking of a color.

Is it one of list of colors above?

Enter your guess:

GrAy

I was thinking of Gray.

Round 3

I am thinking of a color.

Is it one of list of colors above?

Enter your guess:

yellow

I was thinking of Navy.

Game Over

You guessed 2 out of 3 colors correctly.

Would you like to continue a Game? Type Yes/No

Yes

Would you please choose one of the 4 options from the menu:

1. read and display on the screen first 16 names of colors from a file colors.txt, so the player can select one of them names of colors.
2. read and display on the screen first 10 names of colors from a file colors.txt, so the player can select one of them names of colors.
3. read and display on the screen first 5 names of colors from a file colors.txt, so the player can select one of them names of colors.
4. Exit from a program

Enter the option: 3

Enter the filename: colors.txt

There are sixteen colors from a file:

1 black

2 white

3 gray

4 silver

5 maroon

Round 1

I am thinking of a color.

Is it one of list of colors above?

Enter your guess:

Black

I was thinking of Black.

Round 2

I am thinking of a color.

Is it one of list of colors above?

Enter your guess:

GrAy

I was thinking of Gray.

Round 3

I am thinking of a color.

Is it one of list of colors above?

Enter your guess:

yellow

I was thinking of Navy.

Game Over

You guessed 2 out of 3 colors correctly.

Would you please choose one of the 4 options from the menu:

1. read and display on the screen first 16 names of colors from a file colors.txt, so the player can select one of them names of colors.
2. read and display on the screen first 10 names of colors from a file colors.txt, so the player can select one of them names of colors.
3. read and display on the screen first 5 names of colors from a file colors.txt, so the player can select one of them names of colors.
4. Exit from a program

Enter the option: 4

Enter your name: Edward Platt

Describe yourself: I am a CMSC student with a major in Computer Science

Due Date: 02/10

Username: Edward Platt

User Description: I am a CMSC203 student with a major in Computer Science

Date: 02/10

**Output file EspGameResults.txt:**

Game Over

You guessed 2 out of 3 colors correctly.

Due Date: 02/10

Username: Edward Platt

User Description: I am a CMSC203 student with a major in Computer Science

Date: 02/10

**Deliverables**

**Deliverables / Submissions and Deliverable format:**

* The Java application must compile and run correctly, otherwise the project grade will be zero.
* The detailed grading rubric is provided in the assignment rubric excel file.
* Your source code should contain proper indentation and documentation.
* Documentation within a source code should include:
* additional Comments to clarify a code, if needed
* class description comments at the top of each program containing the course name, the project number, your name, the date, and platform/compiler that you used to develop the project, for example:

/\*

 \* Class: CMSC203

 \* Instructor:

 \* Description: (Give a brief description for each Class)

 \* Due: MM/DD/YYYY

\* Platform/compiler:

\* I pledge that I have completed the programming assignment

\* independently. I have not copied the code from a student or \* any source. I have not given my code to any student.

 \* Print your Name here: \_\_\_\_\_\_\_\_\_\_

\*/

The deliverables will be packaged as follows. Two compressed files in the following formats:

* **FirstInitialLastName\_Project1\_Complete.zip**, a compressed file in the zip format, with the following:
  + src folder:
    - * + includes only .java files
  + Word document that includes (use provided template):
    - 1. Screenshots:
         1. One screenshot of the application running from the command prompt line.
         2. One screenshot of the application running in your IDE.
         3. Screen shot of Java file (ESPGame.java) in your GitHub repository.
      2. Lessons Learned: Provide answers to the questions listed below:
         1. Write about your Learning Experience, highlighting your lessons learned and learning experience from working on this project.
         2. What have you learned?
         3. What did you struggle with?
         4. What would you do differently on your next project?
         5. What parts of this assignment were you successful with, and what parts (if any) were you not successful with?
         6. Provide any additional resources/links/videos you used to while working on this assignment/project.
    - **FirstInitialLastName\_Project1\_JavaFiles.zip**, a compressed file containing one or more Java files **(This folder SHOULD NOT contain any folders and it should contain Java source file only):**
      * + ESPGame.java