Code Assignment 1
Branches & Pseudo-Random Numbers

ECE 131 – Programming Fundamentals
Instructor: M. Wolverton

Items Due

- **Fortune Teller (main.c)**

Instructions

Complete the coding directive in your C language IDE of choice (Eclipse, NetBeans) or by command line compiling. Once you have verified that the program works as intended, login to the file server at *cec-code-lab.aps.edu* and create a folder with the assignment name (e.g. Code 1). Locate all **.c** and **.h** source files written by you (e.g. main.c) and upload them to into the assignment folder. Code will be downloaded and archived for grading on the assignment due date.

Fortune Teller

Write a command line version of the classic fortune teller toy, the Magic 8-Ball. The Magic 8-Ball is a hollow plastic sphere filled with dark colored liquid and floating dice with 'yes', 'no' and 'maybe' type responses printed on them. It has a viewing window on the bottom. Its intended use is to ask a 'yes' or 'no' question, shake the ball with the window pointed downward, then invert to see one of the responses. For more details see *https://en.wikipedia.org/wiki/Magic_8-Ball*. The original Magic 8-Ball had 20 possible responses.

Create a C program with the following criteria.

- Use `printf()` to introduce the program and greet the user.
- Use `scanf()` to pause execution to allow the user to ask a question.
- Use `rand()` to generate a pseudo-random number. Be sure to use `srand()` to seed the random generation properly.
- Use the pseudo-random number to select from 20 different responses then print with `if` and `else` conditions.

Notes

Your fortune teller may have any responses, but should have 20 total. Each response must be an affirmative (yes), a negative (no) or non-committal (maybe). The original Magic 8-Ball had the following possible responses.

It is certain.	As I see it, yes.	Reply hazy, try again.	Don't count on it.
It is decidedly so.	Most likely.	Ask again later.	My reply is no.
Without a doubt.	Outlook good.	Better not tell you now.	My sources say no.
Yes – definitely.	Yes.	Cannot predict now.	Outlook not so good.
You may rely on it.	Signs point to yes.	Concentrate and ask again.	Very doubtful.