

Halloween

app design



occupation: witch

name: Witchy Witch Witch

Nationality: unknown

age: 376

Scenario

A computer program called Halloween needs to be designed. You will design and code the back end.

When the program starts, a menu is displayed.

If the user chooses option 1, the user plays Trick or Treat.

If the user chooses option 2, the user plays Bobbing For Apples

If the user chooses option 3, the user plays Guess How Many Eyeballs

If the user chooses any other option, the program terminates. Below is an attempt at writing the main program:

```

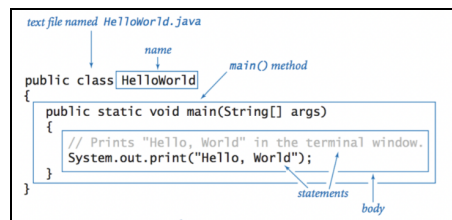
public static void halloween(){
    int choice;
    do{
        choice = getChoice();
        switch(choice){
            case 1:
                boolean tricked = trickOrTreat();
                if(tricked){
                    System.out.println("Tricked!");
                }else{
                    System.out.println("Treated!");
                }
                break;
            case 2:
                int applesAvailable = (int) (Math.random()*5)+1;
                int score = bobbing(applesAvailable);
                System.out.println("Your score is "+score);
                break;
            case 3:
                eyeballs();
                break;
            default:
                break;
        }
    }while(choice>=1 && choice<=3);
}

```

Challenges

Using the incredible power of human creativity and imagination, design the functions above. They can be extremely simple or as complicated as you want them to be. Think about the purpose of each function that it might be called by any program on Planet Earth, not just the one presented here.

JAVA CHEAT SHEET



type	set of values	common operators	sample literal values
int	integers	+ - * / %	99 12 2147483647
double	floating-point numbers	+ - * /	3.14 2.5 6.022e23
boolean	boolean values	&& !	true false
char	characters		'A' '1' '%' '\n'
String	sequences of characters	+	"AB" "Hello" "2.5"

Printing.

```

void System.out.print(String s)    print s
void System.out.println(String s)  print s, followed by a newline
void System.out.println()          print a newline

```

Nested if-else statement.

```

if (income < 0) rate = 0.00;
else if (income < 8925) rate = 0.10;
else if (income < 36250) rate = 0.15;
else if (income < 87850) rate = 0.23;
else if (income < 183250) rate = 0.28;
else if (income < 398350) rate = 0.33;
else if (income < 400000) rate = 0.35;
else rate = 0.396;

```

```

Scanner scan = new Scanner(System.in);

Double num1 = scan.nextDouble();

Int num2 = scan.nextInt();

String word = scan.nextLine();

```

Comparison operators.

op	meaning	true	false
==	equal	2 == 2	2 == 3
!=	not equal	3 != 2	2 != 2
<	less than	2 < 13	2 < 2
<=	less than or equal	2 <= 2	3 <= 2
>	greater than	13 > 2	2 > 13
>=	greater than or equal	3 >= 2	2 >= 3

```
int rand = (int) (Math.random() * 100);
```

Booleans.

values	true or false		
literals	true	false	
operations	and	or	not
operators	&&		!

