LAB 3 - HANDOUT
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Lab D
Lecture 4

- Declaring Variables
  Syntax   :   <var_type> <var_name>;
  Complete the following
  <var_type>   : byte, short, int, long, float, double, char, String, boolean
                         (List out the different types of variables)
  <var_name>   : start with either a lower-case letter or underscore, capitalize each word after
                         (List the rules for identifiers)
  Eg
          int age = 0; //declare and initialize an integer variable called age to 0
          String name; //declare a String variable called name

- Declaring a constant uses the keyword   : final
- Printing & Displaying
  - o   System.out.println("Your age is "+age);
  - o   print()   : println will start a new line at the end of what it prints, print will not
                      (How is print() different from println())
  - o   Escape sequences – what do these mean ?
    - ▪   \n   : Newline
    - ▪   \t   : prints a Tab
    - ▪   \r   : Return
    - ▪   \b   : backspace
    - ▪   \"   : prints a double quote
    - ▪   \'   : prints a single quote
    - ▪   \\   : prints a black slash

- Reading User Input (Scanner Class)
  Eg :
  ```
  import java.util.Scanner;
  - - - - - -
        Scanner scan = new Scanner(System.in);
        int age = scan.nextInt();
  ```
  What method would you use to read in
          a double variable ?   : nextDouble()
          a String variable ?   : next() or nextLine()
  How is next() different from nextLine() ? next() reads until a space, nextLine() reads until \n

- DecimalFormat Class   : What will be the output of this partial code?
  ```
  import java.text.DecimalFormat;
  - - - - - - -
      DecimalFormat fmt = new DecimalFormat ("0.##");
      double area = 79.459987;
      System.out.println("Area is "+fmt.format(area));
  ```
  output is 79.46
- String Class   : What will be the output of the following partial code ?

  ```
          str =   "Principles of Programming with Java";
          str.charAt(5)                    : i
  ```

```
str.compareTo("Hello")   : 8
str.concat(" CSE110")    : Principles of Programming with Java CSE110
str.length               : 35
str.replace('P','T'): Trinciples of Trograming with Java
str.substring(14,21): Program
str.toUpperCase()        : PRINCIPLES OF PROGRAMMING WITH JAVA
str.toLowerCase()        : principles of programming with java
```