



JAVA IDENTIFIERS AND DATA TYPES

Machine Problem No. 1 Worksheet

Course: **NCP2103: Object-Oriented Programming**

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Machine Problems

Instructions: Perform the following tasks. Provide a screenshot of your code and output if necessary.

1. Identify whether the following variables are (A) valid and conventional, (B) valid but unconventional, or (C) invalid. If your answer is B or C, provide a short explanation of why it is unconventional or invalid.

Variable Name	Category: A, B, or C	Explanation
1) void	C	Void is a reserved keyword.
2) studentname	B	It is in lowercase.
3) student name	C	Space characters are illegal.
4) StudentName	A	Underscore is not commonly used to indicate new words.
5) student_name	B	It starts with a number.
6) StUdenTNaMe	C	Alternating lower and uppercase is not formal.
7) 2022studen_name	C	It starts with a number.
8) 2022studentName	C	It starts with a number.
9) student	B	It starts in lowercase
10) STUDENT_NAME	B	Underscore is not commonly used to indicate



		new words.
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2. Identify whether the following class names are (A) valid and conventional, (B) valid but unconventional, or (C) invalid. If your answer is B or C, provide a short explanation of why it is unconventional or invalid.

Class Name	Category: A, B, or C	Explanation
1) FirstProgram	A	
2) firstProgram	B	It doesn't use pascal casing.
3) 2020FirstProgram	C	It starts with a number.
4) 2020firstprogram	C	It starts with a number.
5) FIRSTPROGRAM	B	The word is in uppercase.
6) First_Program	B	Underscore is not commonly used to indicate new words.
7) firrst_program	B	It is in lowercase and underscore is not commonly used to indicate new words
8) First_Program	B	Underscore is not commonly used to indicate new words.
9) ProgramFirst	A	
10) Program_First	B	Underscore is not commonly used to indicate new words.

3. Identify the most appropriate data type for the following data.

Data	Type
1) Age	byte
2) Employee's salary	short
3) Pi	double



4) Tuition fee	short
5) Number of students in a class	byte
6) Middle initials	char
7) Student name	char
8) Contact number	int
9) Voter or not	boolean
10) Gravitational acceleration (9.8)	double

4. Write, compile, and run a simple Java program that will print your favorite quotation.

Sample Output:

"The future belongs to those who believe in the beauty of their dreams."

- Eleanor Roosevelt -

Note: Consider the " " marks placed on the start and end of the quote.

Modify your code, now, include the three types of Java comments in different positions.

Source Code

```
package javaapplication1;

public class JavaApplication1 {
    public static void main(String[] args) {
        System.out.println("\nThe future belongs to those who believe in the beauty of their dreams\"\n" +
            "-Eleanor Roosevelt-");
    }
}
```

Output



University of the East
Manila Campus
College of Engineering
Computer Engineering Department



```
run:
"The future belongs to those who believe in the beauty of their dreams"
-Eleanor Roosevelt-
BUILD SUCCESSFUL (total time: 0 seconds)
```

5. Write, compile, and run a Java program to print the following based on the given conditions:
- Print the lines below using **one** line of `System.out.println` only.
University of the East
College of Engineering
Computer Engineering Department
 - Print the lines below using one line of `System.out.println` only.
NCP2103: Object Oriented Programming
Asst. Prof. Errol John Antonio (*consider the spaces in the second line*)
 - Print -- Today's weather is fine (*including the single quote mark*)
 - Print -- "Tomorrow Begins in the East" (*including the double quote mark*)
 - Print -- 1/3 of 30 is 10. (*including the slash mark*)

Source Code

```
public class JavaApplication1 {
    public static void main(String[] args) {

        System.out.println("University of the East\n" + "College of Engineering\n" + "Computer Engineering Department");
        System.out.println("NCP2103: Object Oriented Programming\n" + "\tAsst. Prof. Errol John Antonio");
        System.out.println("Today" + "'s\t" + "weather is fine");
        System.out.println("\\"Tomorrow Begins the East\\");
        System.out.println("1/3 of 30 is 10.");
    }
}
```

Output



```
Output - JavaApplication1 (run) x
run:
University of the East
College of Engineering
Computer Engineering Department
NCP2103: Object Oriented Programming
    Asst. Prof. Errol John Antonio
Today's weather is fine
"Tomorrow begins the East"
1/3 of 30 is 10.
BUILD SUCCESSFUL (total time: 0 seconds)
```

Grading Rubric

See the attached grading rubric.