Fundamentals of Object Oriented Programming

CSN- 103

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Identifiers

- When more than one words are used in a name
  - `dayTemparature`
  - `firstDayOfMonth`
  - `totalMarks` ✓

  total Marks ✗

- All private and local variables use only lowercase letters combined with underscores
  - `length`
  - `batch_strength`

- All classes and interfaces start with a leading uppercase letter
  - `Student`
  - `HelloJava`
  - `Vehicle`
  - `MotorCycle`

Identifiers

- Variables that represent Constant Values use uppercase letters and underscores
  - `TOTAL`
  - `F_MAX`
  - `PRINCIPAL_AMOUNT`

Literals

- Integer
- Floating_Point
- Character
- String
- Boolean

Separators

( )	Encloses arguments in method definitions and calling; adjusts precedence in arithmetic expressions; surrounds cast types and delimits test expressions in flow control statements

{ }	defines blocks of code and automatically initializes arrays

[ ]	declares array types and dereferences array values

;	terminates statements

,	separates successive identifiers in variable declarations; chains statements in the test, expression of a for loop

.	Selects a field or method from an object; separates package names from sub-package and class names

:	Used after loop labels

Java Statements

- **Empty Statement**

- **Labelled Statement**

```
hackit:
while (Some condition) {
    if ( a specific condition )
        break hackit;                    //Usage with label
    else
        normal business goes here..
}
```

- **Expression Statement**
  - Assignment, Pre-Increment, Pre-Decrement, Post-Increment, Post-Decrement, Method Call and Allocation Expression
    - **double d = new double(8.9473);**

Java Statements

- ## Selection statement
  - – if, if-else and switch

- ## Iteration Statement
  - – while, do and for

- ## Jump Statement
  - – break, continue, return and throw

- ## Guarding statement
  - – try, catch and finally

Constants, Variables and Data Types

- ## Constants
  - Constants in Java refers to fixed values that do not change during the execution of a program
    - Integer constants
    - Real constants
    - Single character constants
    - String constants
    - Backslash character constants

- ## Integer Constants
  - decimal, octal and hexadecimal

- ## Decimal
  - ➢ 123   −456   0   76543

- ## Octal
  - ➢ 037   0   0234   0661

hexadecimal

- Hexadecimal
  - 0X2   0X9F   0xbcd   0x

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```java
/* package whatever; // don't place package name! */

import java.util.*;
import java.lang.*;
import java.io.*;

/* Name of the class has to be "Main" only if the class is public. */
class Ideone
{
    public static void main (String[] args) throws java.lang.Exception
    {
    int a;
    a=03467;
    System.out.println(a);
    }
}
```

Success #stdin #stdout 0.05s 27620KB

📥 stdin

Standard input is empty

⚙ stdout

1847

https://ideone.com/INYb7I

```
1.   /* package whatever; // don't place package name! */
2.
3.   import java.util.*;
4.   import java.lang.*;
5.   import java.io.*;
6.
7.   /* Name of the class has to be "Main" only if the class is public. */
8.   class Ideone
9.   {
10.      public static void main (String[] args) throws java.lang.Exception
11.      {
12.      int b;
13.      b=0x23ef;
14.      System.out.println(b);  // your code goes here
15.      }
16.  }
```

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stdin

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