23BAI1117 – BCSE103E – Java

16/07/2024 – Day1

https://github.com/sriram-s-23BAI1117/javap

1)

```java
public class Print{
    Run | Debug
    public static void main(String[] args){
        System.out.println(x:"Hello World!");
    }
}
```

```
PS D:\javap\javap\Day1-16-07-24> javac Print.java
PS D:\javap\javap\Day1-16-07-24> java Print
Hello World!
```

2)

```java
public class Comments {
    Run | Debug
    public static void main(String[] args) {
        final int b = 12;
        int a=25;
        a+=10;

        //b+=5; This is a single line comment (final variable cannot be assigned a value)

        /* This is a
        multiline
        comment*/

        //comments will not be executed

        String str= "Hello world";
        System.out.println(a);
        System.out.println(b);
        System.out.println(str);
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\
g\Code\User\workspaceStorage\df070269114
35
12
Hello world
```

3)

```java
public class Variable {
    Run | Debug
    public static void main(String[] args) {
        final int b = 12;
        int a=25;
        a+=10;
        //b+=5;
        String str= "Hello world";
        System.out.println(a);
        System.out.println(b);
        System.out.println(str);
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\Jav
g\Code\User\workspaceStorage\df070269114bad
35
12
Hello world
```

23BAI1117 – BCSE103E – Java

18/07/2024 - Day2

https://github.com/sriram-s-23BAI1117/javap

Programs:

1)

```java
public class TypeCast1{
    Run | Debug
    public static void main(String[] args){
        int myInt = 9;
        double myDouble = myInt;
        System.out.println(myInt);
        System.out.println(myDouble);
    }
}
```

```
PS D:\javap\javap\Day2-18-07-24> javac TypeCast1.java
PS D:\javap\javap\Day2-18-07-24> java TypeCast1
9
9.0
```

2)

```java
public class TypeCast2{
    Run | Debug
    public static void main(String[] args){
        double myDouble = 9.78;
        int myInt = (int) myDouble;
        System.out.println(myDouble);
        System.out.println(myInt);
    }
}
```

```
PS D:\javap\javap\Day2-18-07-24> javac TypeCast2.java
PS D:\javap\javap\Day2-18-07-24> java TypeCast2
9.78
9
```

3)

```java
public class AddOperator{
    Run | Debug
    public static void main(String[] args){
        int sum1=100+50,sum2,sum3;
        sum2=sum1+50;
        sum3=sum2+sum2;
        String str1="Hello"+sum3;
        System.out.println(sum1);
        System.out.println(sum2);
        System.out.println(sum3);
        System.out.println(str1);
    }
}
```

```
PS D:\javap\javap\Day2-18-07-24> javac AddOperator.java
PS D:\javap\javap\Day2-18-07-24> java AddOperator
150
200
400
Hello400
```

4)

```java
public class ConditionalOperator{
    Run | Debug
    public static void main(String[] args){
        int x,y;
        x=20;
        y=(x==1)?61:90;
        System.out.println("Value of y is: "+y);
        y=(x==20)?61:90;
        System.out.println("Value of y is: "+y);
    }
}
```

```
PS D:\javap\javap\Day2-18-07-24> javac ConditionalOperator.java
PS D:\javap\javap\Day2-18-07-24> java ConditionalOperator
Value of y is: 90
Value of y is: 61
```

5)

```java
public class StrLen{
    Run | Debug
    public static void main(String[] args){
        String str="Hello World";
        System.out.println("The length of str is "+str.length());
    }
}
```

```
PS D:\javap\javap\Day2-18-07-24> javac StrLen.java
PS D:\javap\javap\Day2-18-07-24> java StrLen
The length of str is 11
```

6)

```java
public class StrCase{
    Run | Debug
    public static void main(String[] args){
        String str="Hello World";
        System.out.println(str.toUpperCase());
        System.out.println(str.toLowerCase());
    }
}
```

```
PS D:\javap\javap\Day2-18-07-24> javac StrCase.java
PS D:\javap\javap\Day2-18-07-24> java StrCase
HELLO WORLD
hello world
```

7)

```java
public class StrIndex{
    Run | Debug
    public static void main(String[] args){
        String str="Hello World";
        System.out.println(str.indexOf(ch:'o'));
    }
}
```

```
PS D:\javap\javap\Day2-18-07-24> javac StrIndex.java
PS D:\javap\javap\Day2-18-07-24> java StrIndex
4
```

23BAI1117 – BCSE103E – Java

22/07/2024 – Day1(Theory)

Programs:

https://github.com/sriram-s-23BAI1117/javap

1)

```java
public class PlusOperator{
    Run | Debug
    public static void main(String[] args){
        String firstname = "John";
        String lastname = "Doe";
        System.out.println(firstname + " " + lastname);
    }
}
```

```
PS D:\javap\javap>  d:; cd 'd:\javap
sers\srira\AppData\Roaming\Code\User
John Doe
```

2)

```java
public class Concat_str {
    Run | Debug
    public static void main(String[] args) {
        String firstname = "John";
        String lastname = "Doe";
        System.out.println(firstname.concat(lastname));
    }
}
```

```
PS D:\javap\javap>  d:; cd '
ers\srira\AppData\Roaming\Co
JohnDoe
```

3)

```java
public class StrInt {
    Run | Debug
    public static void main(String[] args) {
        String x = "10";
        int y = 20;
        String z = x + y;
        System.out.println(z);
    }
}
```

```
PS D:\javap\javap>  & 'C:\Pro
\Code\User\workspaceStorage\d
1020
```

4)

```java
public class SplChar {
    Run | Debug
    public static void main(String[] args) {
        String txt = "We are the so-called \"Vikings\"from the north.";
        System.out.println(txt);
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\Java\jdk-21\bi
\Code\User\workspaceStorage\df070269114bad7e7ee0ccada7
We are the so-called "Vikings"from the north.
```

5)

```java
public class MathMax {
    Run | Debug
    public static void main(String[] args) {
        System.out.println(Math.max(a:5,b:10));
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\J
\Code\User\workspaceStorage\df070269114ba
10
```

6)

```java
public class MathMin {
    Run | Debug
    public static void main(String[] args) {
        System.out.println(Math.min(a:5,b:10));
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\Java
\Code\User\workspaceStorage\df070269114bad7e
5
```

7)

```java
public class MathSqrt {
    Run | Debug
    public static void main(String[] args) {
        System.out.println(Math.sqrt(a:64));
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program File
\Code\User\workspaceStorage\df07026911
8.0
```

8)

```java
public class MathAbs {
    Run | Debug
    public static void main(String[] args) {
        System.out.println(Math.abs(-4.7));
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\
\Code\User\workspaceStorage\df070269114b
4.7
```

9)

```java
public class MathRandom {
    Run | Debug
    public static void main(String[] args) {
        System.out.println(Math.random());
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\Jav
\Code\User\workspaceStorage\df070269114bad7
0.1904891138900754
```

23BAI1117 – BCSE103E – Java

23/07/2024 – Day2(Theory)

Programs:

https://github.com/sriram-s-23BAI1117/javap

1)

```java
public class Boolean {
    Run | Debug
    public static void main(String[] args) {
        boolean isJavaFun = true;
        boolean isFishTasty = false;
        System.out.println(isJavaFun);
        System.out.println(isFishTasty);
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\J
\Code\User\workspaceStorage\df070269114ba
true
false
```

2)

```java
public class Comp {
    Run | Debug
    public static void main(String[] args) {
        int x = 10;
        int y = 9;
        System.out.println(x>y);
        System.out.println(10==15);
    }
}
```

```
PS D:\javap\javap>  d:; cd 'd:\javap\javap'; & 'C:\Program Fi
sers\srira\AppData\Roaming\Code\User\workspaceStorage\df07026
true
false
```

3)

```java
public class If {
    Run | Debug
    public static void main(String[] args) {
        if (20 > 18){
            System.out.println(x:"20 is greater than 18");
        }
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\Java\jdk-21\bin\java.exe
\Code\User\workspaceStorage\df070269114bad7e7ee0ccada7d67122\red
20 is greater than 18
```

4)

```java
public class IfElse {
    Run | Debug
    public static void main(String[] args) {
        int time = 20;
        if (time < 18){
            System.out.println(x:"Good day.");
        }
        else {
            System.out.println(x:"Good evening.");
        }
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\Java\jdk
\Code\User\workspaceStorage\df070269114bad7e7ee0
Good evening.
```

5)

```java
public class IfElseIf {
    Run | Debug
    public static void main(String[] args) {
        int time = 22;
        if (time < 10){
            System.out.println(x:"Good morning.");
        }
        else if (time < 20){
            System.out.println(x:"Good day.");
        }
        else {
            System.out.println(x:"Good evening.");
        }
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\Java\jdk-21\bi
\Code\User\workspaceStorage\df070269114bad7e7ee0ccada7
Good evening.
```

6)

```java
public class Switch {
    Run | Debug
    public static void main(String[] args) {
        int day = 4;
        switch (day) {
            case 1:
                System.out.println(x:"Monday");
                break;
            case 2:
                System.out.println(x:"Tuesday");
                break;
            case 3:
                System.out.println(x:"Wednesday");
                break;
            case 4:
                System.out.println(x:"Thursday");
                break;
            case 5:
                System.out.println(x:"Friday");
                break;
            case 6:
                System.out.println(x:"Saturday");
                break;
            case 7:
                System.out.println(x:"Sunday");
                break;
            default:
                System.out.println(x:"Good day!");
        }
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\Java\jdk-21\bin\java.exe
g\Code\User\workspaceStorage\df070269114bad7e7ee0ccada7d67122\re
Thursday
```

7)

```java
public class While {
    Run | Debug
    public static void main(String[] args) {
        int i=0;
        while (i<5){
            System.out.println(i);
            i++;
        }
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\Java\jdk-21\bin
spaceStorage\df070269114bad7e7ee0ccada7d67122\redhat.ja
0
1
2
3
4
```

8)

```java
public class DoWhile {
    Run | Debug
    public static void main(String[] args) {
        int i=0;
        do {
            System.out.println(i);
            i++;
        }
        while (i<5);
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\Java
g\Code\User\workspaceStorage\df070269114bad7
0
1
2
3
4
```

9)

```java
public class For {
    Run | Debug
    public static void main(String[] args) {
        for (int i=0;i<5;i++){
            System.out.println(i);
        }
    }
}
```

```
PS D:\javap\javap>  d:; cd 'd:\javap\javap'; & 'C:\Progr
ers\srira\AppData\Roaming\Code\User\workspaceStorage\df0
0
1
2
3
4
```

10)

```java
public class ForEach {
    Run | Debug
    public static void main(String[] args){
        String[] cars = {"Volvo","BMW","Ford","Mazda"};
        for (String i: cars){
            System.out.println(i);
        }
    }
}
```

```
PS D:\javap\javap>  & 'C:\Progr
\Code\User\workspaceStorage\df0
Volvo
BMW
Ford
Mazda
```

11)

```java
public class BreakFor {
    Run | Debug
    public static void main(String[] args) {
        for (int i=0;i<10;i++){
            if (i==4){
                break;
            }
            System.out.println(i);
        }
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\Java\
\Code\User\workspaceStorage\df070269114bad7e7
0
1
2
3
```

12)

```java
public class ContinueFor {
    Run | Debug
    public static void main(String[] args) {
        for (int i=0;i<10;i++){
            if (i==4){
                continue;
            }
            System.out.println(i);
        }
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\Java\jdk-21\bin\java.exe'
\workspaceStorage\df070269114bad7e7ee0ccada7d67122\redhat.java\jdt
0
1
2
3
5
6
7
8
9
```

13)

```java
import java.util.Scanner;

public class ScanLine {
    Run | Debug
    public static void main(String[] args) {
        Scanner myObj = new Scanner(System.in);
        String userName;
        System.out.println(x:"Enter username: ");
        userName = myObj.nextLine();
        System.out.println("Username is: " + userName);
        myObj.close();
    }
}
```

```
PS D:\javap\javap>  & 'C:\Program Files\Java\jdk-21\bin\java.ex
g\Code\User\workspaceStorage\df070269114bad7e7ee0ccada7d67122\r
Enter username:
Sriram S
Username is: Sriram S
```

23BAI1117 – BCSE103E – Java
25/07/2024 – Day3

https://github.com/sriram-s-23BAI1117/javap

1)

```java
public class ArraytoString{
    Run | Debug
    public static void main(String[] args) {
        char[] helloArray = {'h','e','l','l','o','.'};
        String helloString =new String(helloArray);
        System.out.println(helloString);
    }
}
```

```
ex3@HOSTCCL:~/23bai1117$ /
af9bf/bin ArraytoString
hello.
```

2)

```java
import java.util.Scanner;

public class calculator {
    public static void main(String[] args) {
        while (true){
            Scanner scan = new Scanner(System.in);
            System.out.print("Enter the required operation: +,-,*,/,^ or 'q' to
quit :- ");
            char input =scan.nextLine().charAt(0);
            if (input == 'q'){
                System.out.println("Thank you for using!!");
                break;
            }
            int num1,num2;

            switch (input) {
                case '+':
                    System.out.print("Enter the two operands: ");
                    num1 = scan.nextInt();
                    num2 = scan.nextInt();
                    System.out.printf("%d + %d = %d\n",num1,num2,num1+num2);
                    break;
                case '-':
                    System.out.print("Enter the two operands: ");
                    num1 = scan.nextInt();
                    num2 = scan.nextInt();
                    System.out.printf("%d - %d = %d\n",num1,num2,num1-num2);
                    break;
                case '*':
                    System.out.print("Enter the two operands: ");
                    num1 = scan.nextInt();
                    num2 = scan.nextInt();
```

```
                    System.out.printf("%d * %d =
%.2f\n",num1,num2,(float)num1*num2);
                    break;
                case '/':
                    System.out.print("Enter the two operands: ");
                    num1 = scan.nextInt();
                    num2 = scan.nextInt();
                    System.out.printf("%d / %d =
%.2f\n",num1,num2,(float)num1/num2);
                    break;
                case '^':
                    System.out.print("Enter the two operands: ");
                    num1 = scan.nextInt();
                    num2 = scan.nextInt();
                    System.out.printf("%d ^ %d = %.2f\n",num1,num2,Math.pow(num1,
num2));
                    break;
                default:
                    System.out.println("Invalid input. Try again!");
                    break;
            }
            //scan.close();
        }
    }
}
```

```
\workspaceStorage\df070269114bad7e7ee0ccada7d67122\redhat.java\jdt_ws\
Enter the required operation: +,-,*,/,^ or 'q' to quit :- +
Enter the two operands: 8 16
8 + 16 = 24
Enter the required operation: +,-,*,/,^ or 'q' to quit :- -
Enter the two operands: 65 4
65 - 4 = 61
Enter the required operation: +,-,*,/,^ or 'q' to quit :- *
Enter the two operands: 4 90
4 * 90 = 360.00
Enter the required operation: +,-,*,/,^ or 'q' to quit :- /
Enter the two operands: 32 11
32 / 11 = 2.91
Enter the required operation: +,-,*,/,^ or 'q' to quit :- ^
Enter the two operands: 2
5
2 ^ 5 = 32.00
Enter the required operation: +,-,*,/,^ or 'q' to quit :- t
Invalid input. Try again!
Enter the required operation: +,-,*,/,^ or 'q' to quit :- q
Thank you for using!!
```