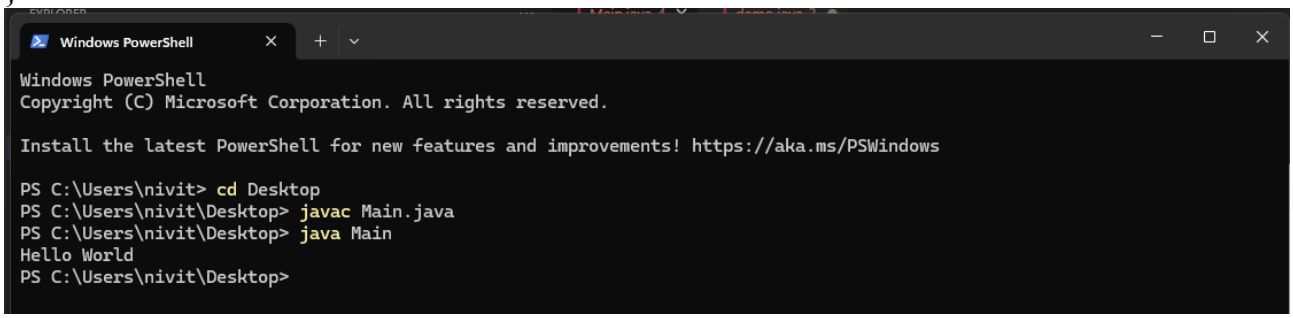
1.**Printing a string**

```
public class Main {
public static void main(String[] args) {
System.out.println("Hello World");
}
}
```



2. **Printing a number assigned to a variable (method:1)**

```
public class Main {
public static void main(String[] args) {
int myNum = 15;
System.out.println(myNum);
}
}
```

3. **Printing a number assigned to a variable (method:2)**

```
int myNum;
myNum = 15;
System.out.println(myNum);
```

4. **Updation of variables**

```
public static void main(String[] args) {
int myNum = 15;
myNum = 20;
System.out.println(myNum);
}
}
```

5. **Concat (method:1)**

```
public static void main(String[] args) {
String name = "John";
System.out.println("Hello " + name);
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
Hello John
```

6. Concat (method:2)

```
public class Main {
public static void main(String[] args) {
String firstName = "John ";
String lastName = "Doe";
String fullName = firstName + lastName;
System.out.println(fullName);
}
}
```

```
PS C:\Users\nivit\downloads> javac Main.java
PS C:\Users\nivit\downloads> java Main.java
John Doe
PS C:\Users\nivit\downloads>
```

7. Concat (method:3)

```
public class Main {
public static void main(String[] args) {
String firstName = "John";
String lastName = "Doe";
System.out.println(firstName + " " + lastName);
}
}
```

```
PS C:\Users\nivit\downloads> javac Main.java
PS C:\Users\nivit\downloads> java Main.java
John Doe
PS C:\Users\nivit\downloads>
```

8. Concat (method:4)

```
public class Main {
public static void main(String[] args) {
String firstName = "John ";
String lastName = "Doe";
System.out.println(firstName.concat(lastName));
}
```

}

```
PS C:\Users\nivit\downloads> javac Main.java
PS C:\Users\nivit\downloads> java Main.java
John Doe
PS C:\Users\nivit\downloads>
```

9. **Addition of two integers (method:1)**

```
public static void main(String[] args) {
int x = 5;
int y = 6;
System.out.println(x + y);
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
11
PS C:\Users\nivit\Desktop>
```

10. **Addition of two integers (method:2)**

```
public static void main(String[] args) {
int x = 5;
int y = 6;
int z = x+y;
System.out.println(z);
}
}
```

```
PS C:\Users\nivit\downloads> javac Main.java
PS C:\Users\nivit\downloads> java Main.java
11
PS C:\Users\nivit\downloads>
```

11. **Datatype float**

```
public class Main {
public static void main(String[] args) {
float myNum = 5.75f;
System.out.println(myNum);
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
5.75
```

12. **Datatype double**

```
public class Main {
public static void main(String[] args) {
double myNum = 19.99d;
System.out.println(myNum);
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
19.99
```

11. **Boolean datatype**

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

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
true
false
```

13. **Widening Casting**

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

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
9
9.0
```

14. **Narrow casting**

```
public class Main {
```

```
public static void main(String[] args) {
double myDouble = 9.78d;
 int myInt = (int) myDouble;
 System.out.println(myDouble);
 System.out.println(myInt);
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
9.78
9
```

15. **Java operators (“+” as eg)**

```
public class Main {
public static void main(String[] args) {
int sum1 = 100 + 50;
int sum2 = sum1 + 250;
int sum3 = sum2 + sum2;
System.out.println(sum3);
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
800
```

16. **Returning true or false by comparison**

```
public class Main {
public static void main(String[] args) {
int x = 5;
int y = 3;
System.out.println(x > y);
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
true
```

17. **Returning length of a string**

```
public class Main {
public static void main(String[] args) {
String txt = "ABCDEFGHIJKLMNOPQRSTUVWXYZ";
System.out.println("The length of the txt string is: " + txt.length());
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
The length of the txt string is: 26
```

18. **Printing to uppercase and lowercase using string functions**

```
public class Main {
public static void main(String[] args) {
String txt = "Hello World";
System.out.println(txt.toUpperCase());
System.out.println(txt.toLowerCase());
}
}
```

```
HELLO WORLD
hello world
```

19. **indexOf function**

```
public class Main {
public static void main(String[] args) {
String txt = "Please locate where 'locate' occurs!";
System.out.println(txt.indexOf("locate"));
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
7
```

20. **Using escape sequence**

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

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
We are the so-called "Vikings" from the north.
```

21. **Finding max of two numbers using max function**

```
public class Main {
public static void main(String[] args) {
System.out.println(Math.max(5, 10));
}
```

}

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
10
```

22. **Finding min of two numbers using min function**

```
public class Main {
public static void main(String[] args) {
System.out.println(Math.min(5, 10));
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
5
```

23. **Finding square root using sqrt function**

```
public class Main {
public static void main(String[] args) {
System.out.println(Math.sqrt(64));
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
8.0
```

24. **Finding absolute value using abs function**

```
public class Main {
public static void main(String[] args) {
System.out.println(Math.abs(-4.7));
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
4.7
```

25. **Generating a random number between 0.0 and 1.0 using random function**

```
public class Main {
public static void main(String[] args) {
System.out.println(Math.random());
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
0.40614076749317496
```

26. **Boolean**

```
public class Main {
  public static void main(String[] args) {
int x = 10;
System.out.println(x == 10);
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
true
```

27. **if condition**

```
public class Main {
public static void main(String[] args) {
if (20 > 18) {
System.out.println("20 is greater than 18");
}
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
20 is greater than 18
```

28. **if-else condition**

```
public class Main {
public static void main(String[] args) {
int time = 20;
if (time < 18) {
  System.out.println("Good day.");
}
else {
  System.out.println("Good evening.");
}
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
Good evening.
```

29. **else-if condition**

```
public class Main {
  public static void main(String[] args) {
int time = 22;
if (time < 10) {
  System.out.println("Good morning.");
}
else if (time < 18) {
  System.out.println("Good day.");
}
else {
  System.out.println("Good evening.");
}
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
Good evening.
```

30. **Short hand if else**

```
public class Main {
public static void main(String[] args) {
int time = 20;
String result = (time < 18) ? "Good day." : "Good evening.";
System.out.println(result);
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
Good evening.
```

31. **Switch case**

```
public class Main {
  public static void main(String[] args) {
int day = 4;
switch (day) {
  case 1:
    System.out.println("Monday");
    break;
  case 2:
    System.out.println("Tuesday");
    break;
```

```
  case 3:
    System.out.println("Wednesday");
    break;
  case 4:
    System.out.println("Thursday");
    break;
  case 5:
    System.out.println("Friday");
    break;
  case 6:
    System.out.println("Saturday");
    break;
  case 7:
    System.out.println("Sunday");
    break;
}
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
Thursday
```

32. Switch case using default

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

```
    System.out.println("Looking forward to the Weekend");
}
}
}
```

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
Thursday
```

33. **While loop**

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

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main
0
1
2
3
4
```

34. **Do-while**

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

```
PS C:\Users\nivit\Desktop> java Main.java
0
1
2
3
4
```

35. **For-loop**

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

```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main.java
0
1
2
3
4
```

36. **for each loop**

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

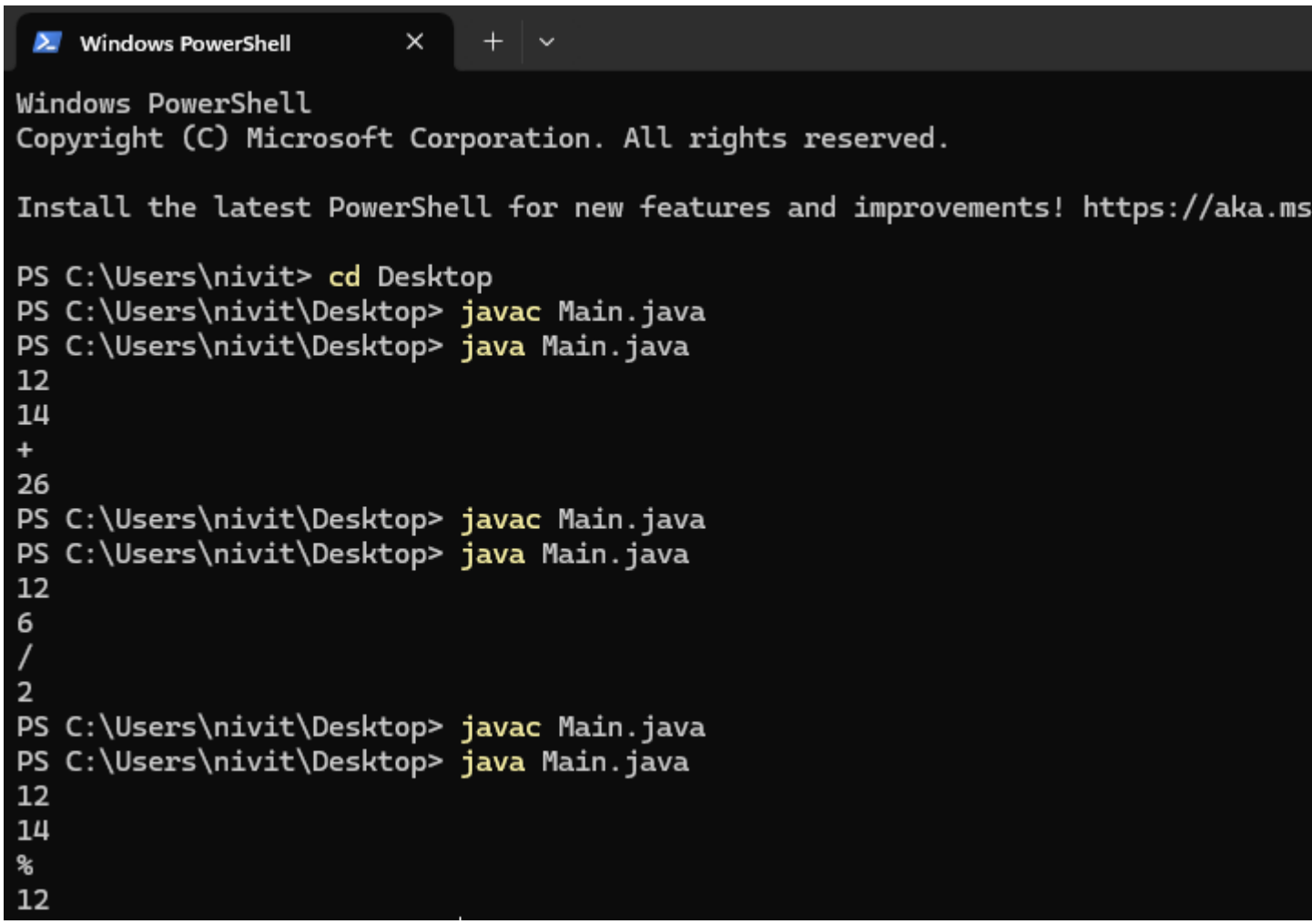
```
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main.java
Volvo
BMW
Ford
Mazda
```

37. **Getting input from the user and printing it**

```
import java.util.Scanner;
public class Main{
public static void main(String[] args){
char[] helloArray ={'h','e','l','l','o','.'};
String helloString=new String(helloArray);
System.out.println(helloString);
}
}
```

38. **Design a simple calculator**

```
import java.util.*;
public class Main{
public static void main(String[] args){
Scanner test=new Scanner(System.in);
int a=test.nextInt();
int b=test.nextInt();
test.nextLine();
String op=test.nextLine();
switch(op){
case "+":
System.out.println(a+b);
break;
case "-":
System.out.println(a-b);
break;
case "*":
System.out.println(a*b);
break;
case "/":
System.out.println(a/b);
break;
case "%":
System.out.println(a%b);
break;
}
}
}
```


Windows PowerShell
Windows PowerShell
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Install the latest PowerShell for new features and improvements! https://aka.ms
PS C:\Users\nivit> cd Desktop
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main.java
12
14
+
26
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main.java
12
6
/
2
PS C:\Users\nivit\Desktop> javac Main.java
PS C:\Users\nivit\Desktop> java Main.java
12
14
%
12