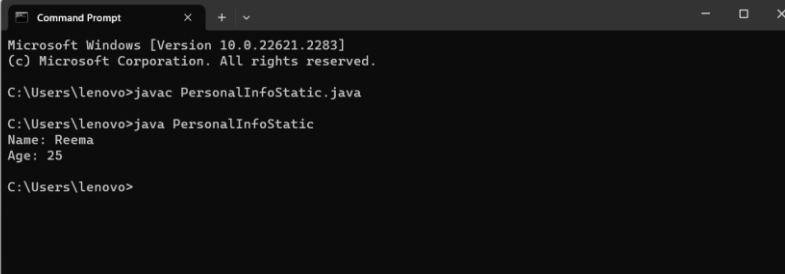


## Static methods

1. Write a program to set your name and age by a static method and get them in an another static method

```
class PersonalInfoStatic {
    public static void printNameAge(String name, int age) {
        System.out.println("Name: " + name);
        System.out.println("Age: " + age);
    }

    public static void main(String[] args){
        printNameAge("Reema", 25);
    }
}
```



```
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C:\Users\lenovo>javac PersonalInfoStatic.java

C:\Users\lenovo>java PersonalInfoStatic
Name: Reema
Age: 25

C:\Users\lenovo>
```

2. Write a program to find the factorial of a number (static method)

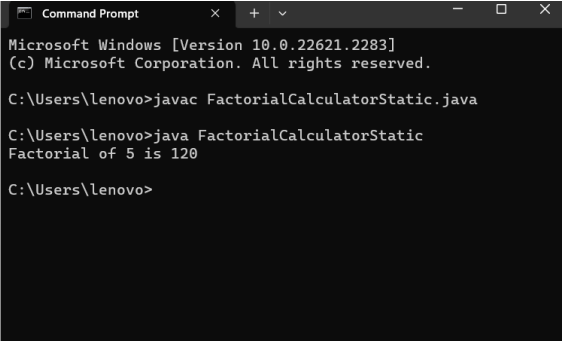
Output – “Factorial of <given number> is <result>.”

```
class FactorialCalculatorStatic {
    public static void calculateAndPrintFactorial(int number) {
        long factorial = 1;

        for (int i = 1; i <= number; i++) {
            factorial *= i;
        }

        System.out.println("Factorial of " + number + " is " + factorial);
    }

    public static void main(String[] args) {
        int number = 5;
        calculateAndPrintFactorial(number);
    }
}
```



```
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C:\Users\lenovo>javac FactorialCalculatorStatic.java

C:\Users\lenovo>java FactorialCalculatorStatic
Factorial of 5 is 120

C:\Users\lenovo>
```

3. Write a program to check whether the given number is Palindrome/Not by using static methods. Method 1- to find the reverse (pass the number in argument) Method 2-to check palindrome/not

```

class PalindromeCheckerStatic {
    public static void main(String[] args) {
        int number = 12321;

        boolean isPalindrome = isNumberPalindrome(number);

        if (isPalindrome) {
            System.out.println(number + " is a palindrome.");
        } else {
            System.out.println(number + " is not a palindrome.");
        }
    }

    public static int reverseNumber(int num) {
        int reversedNum = 0;
        while (num > 0) {
            int remainder = num % 10;
            reversedNum = reversedNum * 10 + remainder;
            num /= 10;
        }
        return reversedNum;
    }

    public static boolean isNumberPalindrome(int num) {
        int reversedNum = reverseNumber(num);
        return num == reversedNum;
    }
}

```

```

Microsoft Windows [Version 10.0.22621.2283]
(c) Microsoft Corporation. All rights reserved.

C:\Users\lenovo>javac PalindromeCheckerStatic.java

C:\Users\lenovo>java PalindromeCheckerStatic
12321 is a palindrome.

C:\Users\lenovo>

```

4. Write a program to check whether the candidate is eligible for Voting (Use static method and boolean return type)

```

class VotingEligibilityCheckerStatic {
    public static boolean isEligibleToVote(int age) {
        return age >= 18;
    }

    public static void main(String[] args) {
        int candidateAge = 20;

        if (isEligibleToVote(candidateAge)) {
            System.out.println("The candidate is eligible to vote.");
        } else {
            System.out.println("The candidate is not eligible to vote.");
        }
    }
}

```

```

Microsoft Windows [Version 10.0.22621.2283]
(c) Microsoft Corporation. All rights reserved.

C:\Users\lenovo>javac VotingEligibilityCheckerStatic.java

C:\Users\lenovo>java VotingEligibilityCheckerStatic
The candidate is eligible to vote.

C:\Users\lenovo>

```

5. Write a program to deposit and withdraw amount from bank account (Withdrawal amount do not exceeds the current balance). Add an extra method to check the account balance. (static methods)

```

class AccountStatic{
    static double currentBalance= 2000;

    public static void deposit(double amount) {
        System.out.println("deposit amount:"+amount);
        currentBalance =currentBalance + amount;
    }

    public static void withdraw(double amount) {
        System.out.println("withdraw amount:" +amount);
        if (amount > currentBalance) {
            System.out.println("Insufficient balance");
        } else {
            currentBalance = currentBalance - amount;
        }
    }

    public static double getBalance() {
        return currentBalance;
    }

    public static void main(String[] args) {

        System.out.println("Current balance is " + AccountStatic.getBalance());
        AccountStatic.deposit(3000);
        System.out.println("Current balance is " + AccountStatic.getBalance());
        AccountStatic.withdraw(1000);
        System.out.println("Current balance is " + AccountStatic.getBalance());
    }
}

```

```

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C:\Users\lenovo>javac AccountStatic.java

C:\Users\lenovo>java AccountStatic
Current balance is 2000.0
deposit amount:3000.0
Current balance is 5000.0
withdraw amount:1000.0
Current balance is 4000.0

C:\Users\lenovo>

```

6. Write a program to check whether the customer have discount (get 20% discount if total amount is greater than 5000) or not and get the final amount in main method. (static methods) Get prices of items using parameterized method Method 1 - Calculate total amount Method 2 - Check discount

```

class DiscountStatic {
    static double calculateTotal(int item1, int item2, int item3) {
        double total = item1 + item2 + item3;
        return total;
    }

    static void checkDiscount(double total) {
        if (total > 5000) {
            double discount = total * 0.2;
            double finalAmount = total - discount;
            System.out.println("You are eligible for a 20% discount.");
            System.out.println("Total amount: " + total);
            System.out.println("Discount: " + discount);
            System.out.println("Final amount: " + finalAmount);
        } else {
            System.out.println("You are not eligible for a discount.");
            System.out.println("Total amount: " + total);
        }
    }

    public static void main(String[] args) {
        double total1 = calculateTotal(1000, 2000, 5000);
        checkDiscount(total1);
    }
}

```

```

Microsoft Windows [Version 10.0.22621.2283]
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C:\Users\lenovo>javac DiscountStatic.java

C:\Users\lenovo>java DiscountStatic
You are eligible for a 20% discount.
Total amount: 8000.0
Discount: 1600.0
Final amount: 6400.0

C:\Users\lenovo>

```

7.