```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport>java Q1_Using

Hello Sir/Madam
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q2_Math
num1: 10.5
num2: 5.3
Sum: 15.0
Difference: 5.0
Product: 55.65
Quotient: 1.9811320754716981
Power: 258406.41151994021
Square root of num1: 3.24037034920393
Square root of num2: 2.3021728866442674
Maximum of num1 and num2: 10.5
Minimum of num1 and num2: 5.3
Angle in radians: 0.7853981633974483
Sine value: 0.7071067811865475
Cosine value: 0.7071067811865476
Tangent value: 0.9999999999999999
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q3_Conversion
Integer Object: 42
Double Object: 3.14
Character Object: A
Boolean Object: true
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q4_ObjectToPrimitiveConversion
Int Value: 42
Double Value: 3.14
Char Value: A
Boolean Value: true
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q5_CompareTo
First String is lesser than Second
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q6_Equals
Strings are not equal
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q7_parseint
123
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q8_integerToString
10
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q9_StackImplementation
Stack size: 3
Top element: !
Popped: !
Popped: World
Popped: Hello
Stack size after popping: 0
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q10_addMethodInVector
Vector elements: [10, 20, 30, 40]
Vector elements after adding at index 2: [10, 20, 25
, 30, 40]
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q11_Dictionary
Alice's age: 25
Bob's age: 30
Charlie's age: 28
Contains key 'Bob'? true
Contains value 22? false
Hashtable after removing key 'Alice': {Bob=30, Charl
ie=28}
Bob is 30 years old.
Charlie is 28 years old.
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q12_enum
Midweek!
Days of the week:
SUNDAY
MONDAY
TUESDAY
WEDNESDAY
THURSDAY
FRIDAY
SATURDAY
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q13_ArrayOfObject
Name: Alice
Age: 20

Name: Bob
Age: 22

Name: Charlie
Age: 21
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q14_MapInterface
Alice's score: 95
Bob's score: 85
Charlie's score: 75
Contains key 'Alice'? true
Contains value 90? false
Updated Bob's score: 88
Map after removing Charlie: {Bob=88, Alice=95}
Map entries:
Key: Bob, Value: 88
Key: Alice, Value: 95
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q15_ListInterface
First fruit: Apple
Second fruit: Banana
Third fruit: Orange
Contains 'Apple'? true
Index of 'Banana': 1
List after removing first element and updating secon
d element: [Mango, Orange]
List elements:
Mango
Orange
List after clearing all elements: []
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labrepor
>java Q16_ListIterator
Forward traversal:
Index: 0, Color: Red
Index: 1, Color: Green
Index: 2, Color: Blue

Backward traversal:
Index: 2, Color: Blue
Index: 1, Color: Green
Index: 0, Color: Red

List after modifying elements:
RED
GREEN
BLUE

List after adding new elements:
RED
GREEN
BLUE
Yellow
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q17_SetinJava
Added duplicate 'Alice'? false
Contains 'Bob'? true
Removed 'Alice'? true
Set elements:
Bob
Charlie
Set after clearing all elements: []
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q18_Arraylist
ArrayList: [10, 20, 30, 40]
Size of ArrayList: 4
First number: 10
Modified ArrayList: [10, 25, 30, 40]
Contains 30? true
Index of 40: 3
Sorted ArrayList: [10, 25, 30, 40]
Removed 25? true
ArrayList after removal: [10, 30, 40]
ArrayList after clearing: []
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q19_linkedList
LinkedList: [Alice, Bob, Charlie]
Size of LinkedList: 3
First element: Alice
Modified LinkedList: [Alice, Barbara, Charlie]
Contains 'Charlie'? true
Index of 'Barbara': 1
LinkedList after adding at the beginning: [Alex, Ali
ce, Barbara, Charlie]
LinkedList after adding at the end: [Alex, Alice, Ba
rbara, Charlie, David]
Removed first element: Alex
LinkedList after removing first: [Alice, Barbara, Ch
arlie, David]
Removed last element: David
LinkedList after removing last: [Alice, Barbara, Cha
rlie]
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q20_Hashset
HashSet: [Red, Blue, Green]
Added duplicate 'Red'? false
Contains 'Green'? true
Removed 'Blue'? true
HashSet elements:
Red
Green
HashSet after clearing: []
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q21_treeSet
TreeSet: [10, 20, 30]
Added duplicate 10? false
Contains 30? true
Removed 20? true
TreeSet elements:
10
30
TreeSet after clearing: []
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q22_Iterator
List elements using Iterator:
Apple
Banana
Orange
List after removing 'Banana': [Apple, Orange]
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q23_Comparator
Sorted students by age:
Name: Alice, Age: 20
Name: Charlie, Age: 21
Name: Bob, Age: 22
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q24_Hashtable
Alice's score: 95
Contains 'Bob'? true
Contains score 75? true
Hashtable after removing 'Charlie': {Bob=85, Alice=9
5}
Hashtable key-value pairs:
Key: Bob, Value: 85
Key: Alice, Value: 95
Hashtable after clearing: {}
```

```
C:\Users\sachi\OneDrive\Desktop\Java class\labreport
>java Q25_Treemap
TreeMap: {Alice=95, Bob=85, Charlie=75}
Alice's score: 95
Contains 'Bob'? true
Contains score 75? true
TreeMap after removing 'Charlie': {Alice=95, Bob=85}
TreeMap key-value pairs:
Key: Alice, Value: 95
Key: Bob, Value: 85
TreeMap after clearing: {}
```