**Operators**

* Write a Java program to perform arithmetic operations (+, -, \*, /, %) on two numbers.
* Write a program to demonstrate the use of bitwise operators (&, |, ^, ~, <<, >>).
* Write a Java program to demonstrate the use of logical operators (&&, ||, !).
* Write a program to swap two numbers using bitwise XOR (^).
* Write a Java program to check whether a given number is within a specific range using the ternary operator.

**Loops**

* Write a Java program to print numbers from 1 to 100 using a for loop.
* Write a program to print even numbers from 1 to 50 using a while loop.
* Write a Java program to find the sum of digits of a number using a while loop.
* Write a Java program to check if a number is prime using a for loop.
* Write a program to print the Fibonacci series up to n terms using a for loop.

**If-Else Condition**

* Write a Java program to check if a number is even or odd using if-else.
* Write a program to find the largest among three numbers using if-else.
* Write a Java program to check whether a number is positive, negative, or zero.
* Write a Java program to check whether a year is a leap year or not.
* Write a Java program to find the grade of a student based on marks using if-else conditions.

**Switch Statement**

* Write a Java program to display the name of a day based on user input (1-7) using a switch statement.
* Write a Java program to perform a simple calculator operation (addition, subtraction, multiplication, division) using switch-case.
* Write a program to check whether a character is a vowel or consonant using a switch statement.
* Write a Java program to display the number of days in a given month using switch.
* Write a program to convert a digit (0-9) into its word representation using switch.

**Functions**

* Write a Java program to create a function that returns the factorial of a number.
* Write a function to check whether a number is prime or not in Java.
* Write a Java program with a function to calculate the power of a number.
* Write a function to check whether a given string is a palindrome or not.  
    
  (Do it later - After Unit 9)
* Write a program with a function to swap two numbers without using a third variable.

**Exception Handling**

* Write a Java program to handle ArithmeticException when dividing by zero.
* Write a program to handle ArrayIndexOutOfBoundsException when accessing an invalid array index.
* Write a Java program to handle NullPointerException using try-catch.
* Write a program to create a custom exception for age validation (if age is less than 18, throw an exception).
* Write a Java program that reads a number from the user and throws an exception if the number is negative. (Do it later - After Unit 9)