

# ESD - Assignments

**Date: 08-01-2024**

1. Write a Java program (WAJP) to find the factorial of a number.
2. WAJP to print the sum and average of the even and odd numbers separately.
3. WAJP to print the following pattern given n as argument:

```
1
2    2
3    3    3
4    4    4    4
```

4. WAJP to print all the prime numbers in an array of n elements.
5. Define a "Clock" class that does the following: -
  - a. Accept hours, minutes and seconds.
  - b. Check the validity numbers.
  - c. Set the time to AM/PM mode.

Use necessary constructors and methods to do the above task.

6. A Drug shop maintains the inventory of drugs that are being sold at the shop. The list includes details such as drug\_id, drug\_name, price, manufacturer and stock position. Whenever a customer wants a drug, the sales person inputs the drug\_id and drug\_name and the system searches the list and displays whether it is available or not. If it is not, an appropriate message is displayed. If it is, then the system displays the drug details and requests for the number of quantity required. If the requested quantities are available, the total cost of the requested quantity is displayed; otherwise the message "required quantities not in stock" is displayed. Design a system using a class called Drugs with suitable member functions and constructors. Provide the provision for updating the stock and price also.