

# Washing Machine Simulation in C++



**Name:** Rushikesh Tushar Patil

**Department:** Cyber Security

**PRN:** 2124UCSM1037

# Project Overview

## **Objective:**

- Simulate basic washing machine operations.
- Implement Object-Oriented Programming (OOP) concepts.

## **Key Functions:**

- Wash, rinse, spin cycles.
- Console-based user interaction.

# Tools & Concepts

## Programming Language:

- C++

## Key Concepts:

- OOP (classes, inheritance, encapsulation)
- Input validation and error handling
- Real-time cycle simulation (timers)



# Methodology

## **Class Structure:**

- Washing machine class with attributes like water level, mode, timer.

## **Cycle Control:**

- Manage washing, rinsing, spinning stages.

## **Error Handling:**

- Ensure robust input validation.

# Results

- **Simulation Achievements:**
  - Functional washing machine model.
  - Successful user interaction via the console.
  - Real-time simulation of operations.



# Conclusion

- **Learnings:**
  - OOP implementation in C++.
  - Simulating real-world systems in software.
- **Future Scope:**
  - Expand features (drying, smart controls).





**Thank you !!**