

Assignment 0

1. Object Name: Refrigerator

State:

- Capacity: 250 Litres
- Color: Silver
- Company Name: LG
- Model: GL-I292RPZL
- Price: ₹25,000
- Energy Rating: 3 Star
- Type: Double Door
- Serial Number: LGREF20240801

Behavior:

1. When powered on, it starts cooling.
2. When the door is opened, the light inside turns on.
3. When the temperature knob is increased, cooling becomes more powerful.

Identity:

- Serial Number: LGREF20240801

Responsibility:

1. Maintain the internal temperature as per the settings.
 2. Preserve food items by keeping them fresh.
 3. Operate continuously with energy efficiency.
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2. Object Name: Laptop

State:

- Processor: Intel i7
- RAM: 16 GB
- Storage: 512 GB SSD
- Brand: Dell
- Model: Inspiron 5409
- Color: Silver
- Serial Number: DELL2024LAP123

Behavior:

1. When the power button is pressed, it boots up.
2. When a key is pressed, it types characters on the screen.

3. When the battery is low, it shows a warning.

Identity:

- Serial Number: DELL2024LAP123

Responsibility:

1. Execute programs as per user commands.
 2. Save and retrieve data efficiently.
 3. Provide interactive user interface via keyboard and display.
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3. Object Name: Washing Machine**State:**

- Capacity: 7 kg
- Company: Samsung
- Model: WA70A4002GS
- Type: Fully Automatic
- Color: Grey
- Serial Number: SAMWM2024X001

Behavior:

1. Starts washing clothes when Wash cycle is selected.
2. Spins clothes to remove excess water.
3. Drains water after wash is completed.

Identity:

- Serial Number: SAMWM2024X001

Responsibility:

1. Wash clothes efficiently based on selected mode.
 2. Spin-dry clothes properly.
 3. Notify user when wash is completed.
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4. Object Name: Air Conditioner**State:**

- Capacity: 1.5 Ton
- Company: Daikin
- Model: FTKF50TV

- Energy Rating: 5 Star
- Color: White
- Serial Number: DAIKINAC20240802

Behavior:

1. Cools the room when temperature is set.
2. Changes mode when user presses the remote.
3. Increases/decreases fan speed based on settings.

Identity:

- Serial Number: DAIKINAC20240802

Responsibility:

1. Maintain room temperature as per user settings.
 2. Operate efficiently with minimal noise.
 3. Consume electricity based on energy rating.
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5. Object Name: Mobile Phone**State:**

- Brand: Apple
- Model: iPhone 15
- Storage: 128 GB
- Color: Midnight Black
- Battery: 4500 mAh
- Serial Number: APPIPH152024

Behavior:

1. Makes and receives calls.
2. Runs applications when tapped.
3. Locks/unlocks via fingerprint or face recognition.

Identity:

- Serial Number: APPIPH152024

Responsibility:

1. Provide communication via calls and internet.
 2. Ensure smooth app functioning.
 3. Secure personal data of user.
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6. Object Name: Water Purifier

State:

- Brand: Kent
- Model: Grand Plus
- Color: White/Blue
- Capacity: 8 Litres
- Technology: RO + UV + UF + TDS
- Serial Number: KENTWP20240803

Behavior:

1. Purifies water when powered on.
2. Stops purification when tank is full.
3. Alerts when filters need replacement.

Identity:

- Serial Number: KENTWP20240803

Responsibility:

1. Purify water ensuring safety standards.
 2. Maintain TDS levels.
 3. Notify for maintenance requirements.
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7. Object Name: Television

State:

- Brand: Sony
- Model: Bravia X90J
- Screen Size: 55 Inches
- Display Type: LED 4K
- Serial Number: SONYTV20240804
- Price: ₹85,000

Behavior:

1. Displays video when powered on.
2. Changes channel when remote button is pressed.
3. Adjusts volume as per user input.

Identity:

- Serial Number: SONYTV20240804

Responsibility:

1. Provide high-quality visual and audio output.
 2. Support various input sources (HDMI, USB).
 3. Respond to remote commands instantly.
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8. Object Name: Microwave Oven**State:**

- Brand: IFB
- Capacity: 30 Litres
- Type: Convection
- Model: 30BRC2
- Color: Black
- Serial Number: IFBMICRO20240805

Behavior:

1. Heats food when timer is set.
2. Rotates the turntable for uniform heating.
3. Beeps after heating is completed.

Identity:

- Serial Number: IFBMICRO20240805

Responsibility:

1. Heat or cook food uniformly.
 2. Maintain safety by automatic shut-off.
 3. Notify user after completion.
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9. Object Name: Smart Watch**State:**

- Brand: Fitbit
- Model: Versa 3
- Color: Black
- Display: AMOLED
- Battery Life: 6 Days
- Serial Number: FITBIT20240806

Behavior:

1. Tracks steps and heart rate continuously.
2. Shows notifications when connected to mobile.
3. Alerts for inactivity.

Identity:

- Serial Number: FITBIT20240806

Responsibility:

1. Monitor health-related parameters.
 2. Sync data with smartphone.
 3. Provide timely alerts and notifications.
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10. Object Name: Bike**State:**

- Brand: Royal Enfield
- Model: Classic 350
- Engine Capacity: 349cc
- Color: Black
- Fuel Type: Petrol
- Serial Number: REBIKE20240807

Behavior:

1. Starts engine when self-start button is pressed.
2. Accelerates when throttle is rotated.
3. Applies brake when brake lever is pressed.

Identity:

- Serial Number: REBIKE20240807

Responsibility:

1. Provide smooth and reliable ride.
2. Ensure safety via braking system.
3. Maintain fuel efficiency.