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SIB 2G

PBO TEORI

1. Smartphone

- **State/Attributes:** o

  Brand o Model

    - o Battery level o

      Screen brightness o

      Operating system o

      Storage capacity o

      Network connection (Wi-

    Fi, 4G/5G) o   Number of

    apps installed

- **Behavior/Methods:**
    - ○ Turn on/off
    - ○ Make/receive calls
    - ○ Send/receive messages
    - ○ Open/close apps
    - ○ Take pictures
    - ○ Browse the internet
    - ○ Adjust volume
    - ○ Charge battery

2. Laptop
- **State/Attributes:** o

  Brand o Model

o   Processor type o

RAM size o   Storage

capacity o Battery level o

Screen resolution o

Operating system

- **Behavior/Methods:** o

Turn on/off o Open/close

applications o Connect to

Wi-Fi o Charge battery o

Adjust brightness o Type

using the keyboard o Use

the   trackpad/mouse   o

Play videos/music

3. Refrigerator

- **State/Attributes:** o Brand o

Capacity o Temperature

setting o Door status

(open/closed) o Number of

shelves o Light status

(on/off) o Power

consumption

- **Behavior/Methods:** o Turn

on/off o Adjust temperature

o Open/close door o Turn

light on/off o Start/stop

cooling o Make ice o Defrost

4. Car

- **State/Attributes:** o Make and model o Fuel level o Engine status (on/off) o Speed o Odometer reading o Tire pressure o Number of doors o Color

- **Behavior/Methods:** o Start/stop engine o Accelerate/decelerate o Turn left/right o Lock/unlock doors o Open/close windows o Turn on headlights o Play music

5. Microwave Oven

- **State/Attributes:** o Brand o Power level o Timer setting o Door status (open/closed) o Capacity o Number of preset cooking modes

- **Behavior/Methods:** o Turn on/off o Set cooking time o Adjust power level o Open/close door

o   Start/stop cooking

o   Defrost food o

Reheat food

Class Diagrams

Smartphone

Attribute	Methods
brand: String	turnOn(): void
model: String	turnOff(): void
batteryLevel: int	makeCall(): void
screenBrightness: int	receiveCall(): void
operatingSystem: String	sendMessage(): void
storageCapacity: int	receiveMessage(): void
networkConnection: String	openApp(appName: String): void
numberOfApps: int	closeApp(appName: String): void
	takePicture(): void
	browseInternet(): void
	adjustVolume(level: int): void
	chargeBattery(): void

Laptop

Attribute	Methods
brand: String	turnOn(): void
model: String	turnOff(): void
processorType: String	openApplication(appName: String): void

ramSize: int	closeApplication(appName: String): void
storageCapacity: int	connectToWiFi(): void
batteryLevel: int	chargeBattery(): void
screenResolution: String	adjustBrightness(level: int): void
operatingSystem: String	typeText(text: String): void
	useTrackpad(): void
	playVideo(videoName: String): void
	playMusic(musicName: String): void

Refrigerator

Attribute	Methods
brand: String	turnOn(): void
capacity: int	turnOff(): void
temperatureSetting: int	adjustTemperature(temp: int): void
doorStatus: boolean	openDoor(): void
numberOfShelves: int	closeDoor(): void
lightStatus: boolean	turnLightOn(): void
powerConsumption: double	turnLightOff(): void
	startCooling(): void
	stopCooling(): void
	makeIce(): void
	defrost(): void

Car

Attribute	Methods
make: String	startEngine(): void
model: String	stopEngine(): void
fuelLevel: int	accelerate(amount: int): void
engineStatus: boolean	decelerate(amount: int): void
speed: int	turnLeft(): void
odometerReading: int	turnRight(): void
tirePressure: int	lockDoors(): void
numberOfDoors: int	unlockDoors(): void
color: String	openWindows(): void
	closeWindows(): void
	turnOnHeadlights(): void
	playMusic(trackName: String): void

MicrowaveOven

Attrubute	Methods
brand: String	turnOn(): void
powerLevel: int	turnOff(): void
timerSetting: int	setCookingTime(time: int): void
doorStatus: boolean	adjustPowerLevel(level: int): void
capacity: int	openDoor(): void
numberOfPresetModes: int	closeDoor(): void
	startCooking(): void
	stopCooking(): void

	defrost(): void
	reheat(): void