EMSS Week 4

USE CASE MODELING

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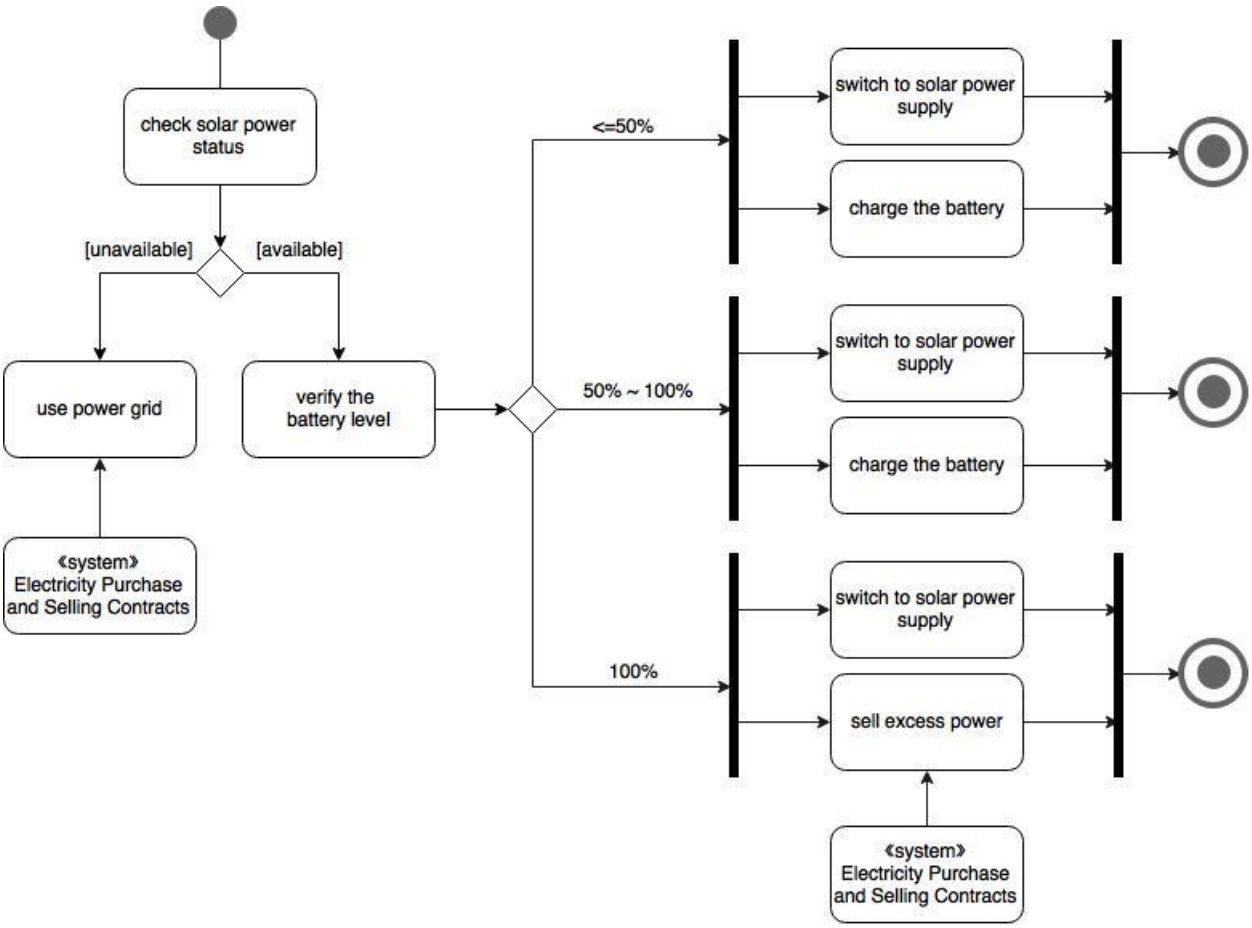
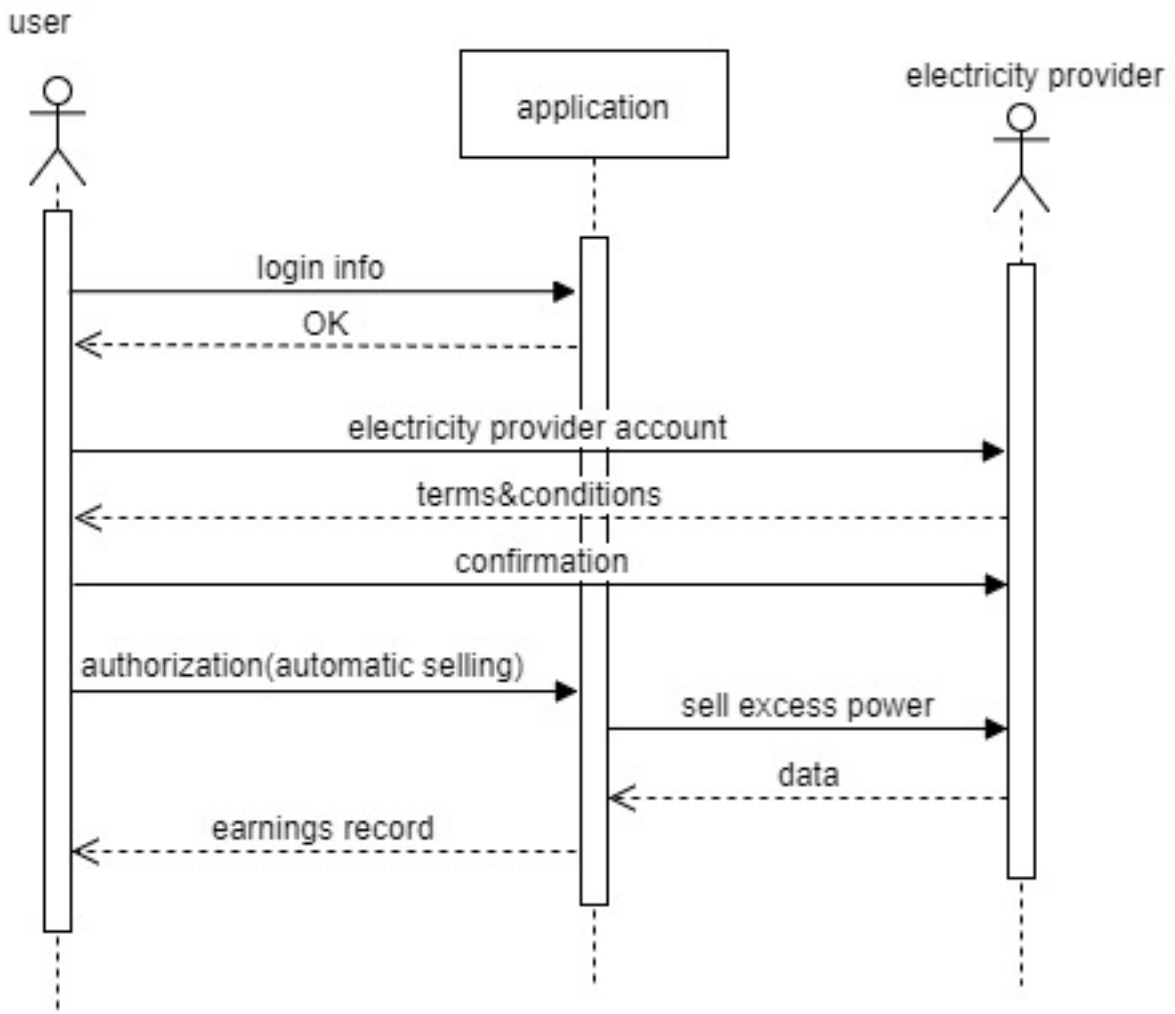
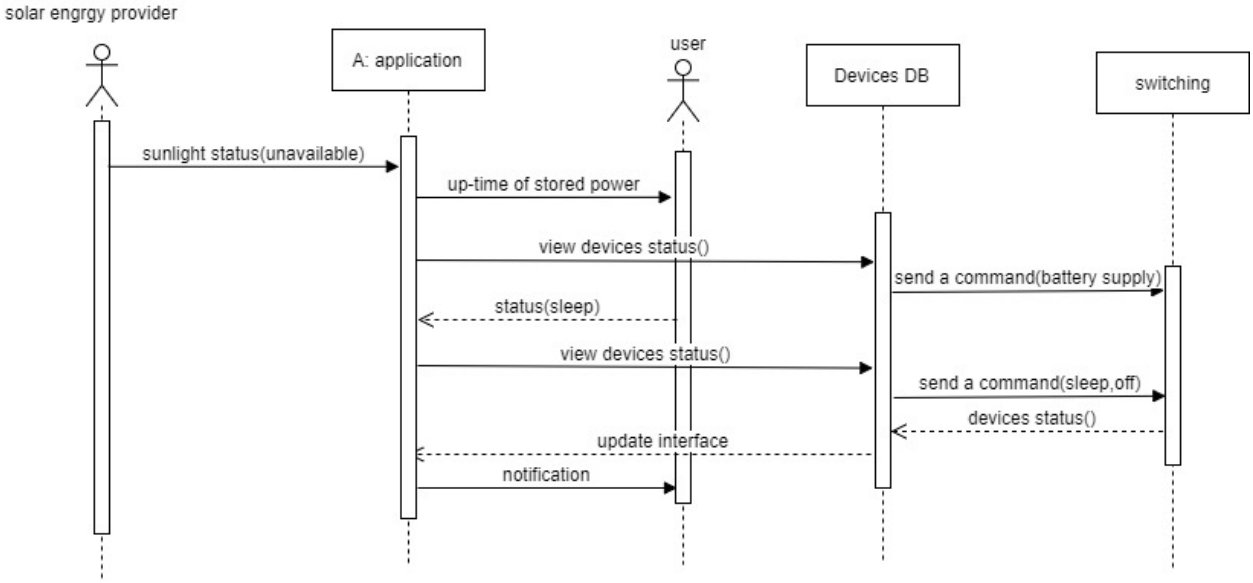
ID	UC001
Name	Day Time Power Supply
Actors	Solar Energy Provider
Description	1. Solar Energy Provider system notifies EMSS about the availability status of solar power. 2. If not available, then continue using power grid. 3. If available, then verify the level of the battery. 4. If the battery level is less then 50%, charge the battery until the level comes to 100%. 5. When the battery level reaches over 50% but not 100%, switch the power supply from Power Grid to Solar Power as well as charging the battery. 6. When the battery is 100% full, then sell the excess power.
Data	Battery Level
Stimulus	Sunlight
Response	Notifies the user about the switch
Comment	User must have enabled the automatic power supply switch mode.



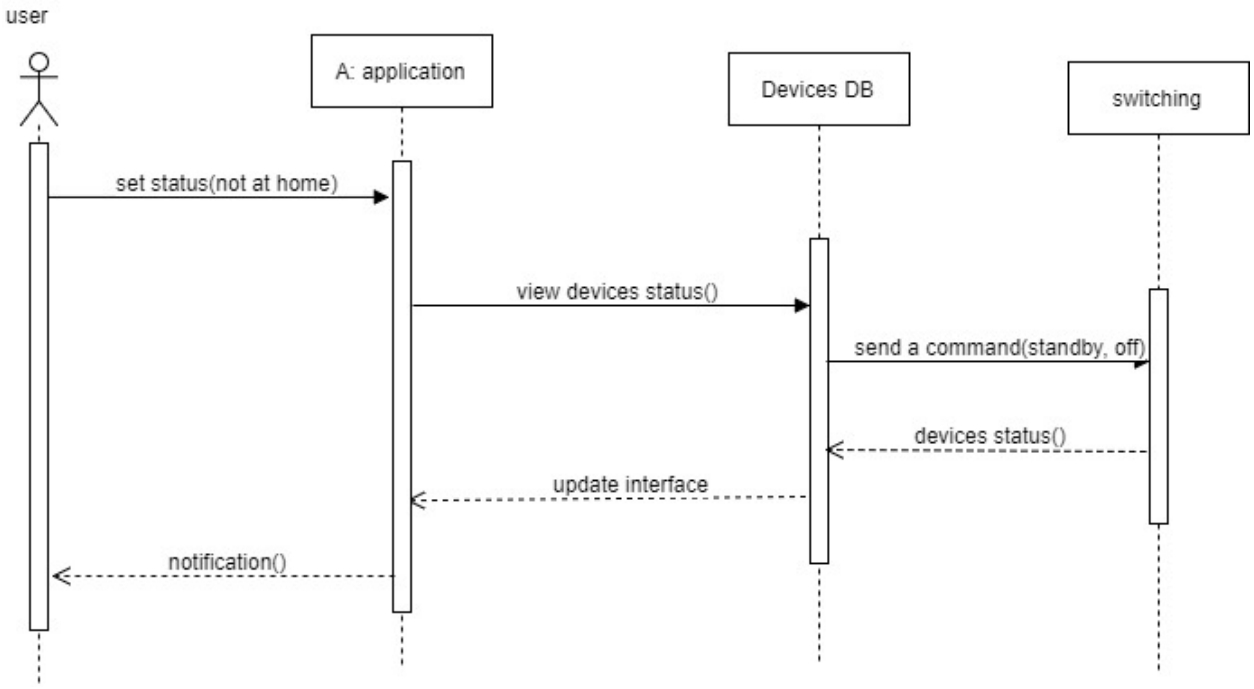
ID	UC002
Name	Sell Excess Power
Actors	Electricity Provider, User
Description	1. User provides login information for the Electricity provider to the application 2. User links the EMSS application with the Electricity Provider account 3. User accepts the terms and conditions 4. User give authorization of automatic selling function to EMSS. 5. EMSS validates the excess solar power and battery level of 100% 6. EMSS routes the solar power to power grid
Data	Electricity Provider DB
Stimulus	Excess Power Supply and Battery Level is 100%
Response	Provide user with earnings record
Comment	



ID	UC003
Name	Night Time Power Supply
Actors	Solar Energy Provider, User
Description	1. Solar Energy Provider notifies the EMSS about the unavailability of sunlight 2. EMSS provides user with an estimated up-time on stored power. 3. EMSS change the power supply to battery supply. 4. The user activates sleep mode while going to sleep 5. EMSS turns off the user specified appliances
Data	Battery level
Stimulus	Unavailability of sunlight
Response	Notifies the user about the switch
Comment	User should specify the devices to be turned off at sleep mode



ID	UC004
Name	User Not at Home
Actors	User
Description	1. The user sets status in application to – not at home 2. EMSS puts the devices on Standby 3. EMSS turns off the lights 4. EMSS locks the door 5. EMSS charges the battery 6. EMSS sends excess power to power grid
Data	Devices DB
Stimulus	
Response	EMSS sends confirmation message to user
Comment	



ID	UC005
Name	Check the usage report
Actors	User, Electricity Provider, Solar Energy Provider
Description	1. User clicks on the option to generate report 2. EMSS fetches data from Solar Energy Provider 3. EMSS fetches data from Electricity Provider 4. EMSS calculates the total usage and costs 5. User downloads the generated report
Data	Electricity Provider DB, Solar Energy Provider
Stimulus	
Response	EMSS generates the requested report
Comment	User must have linked the Electricity provider account, Solar Power Provider with EMSS