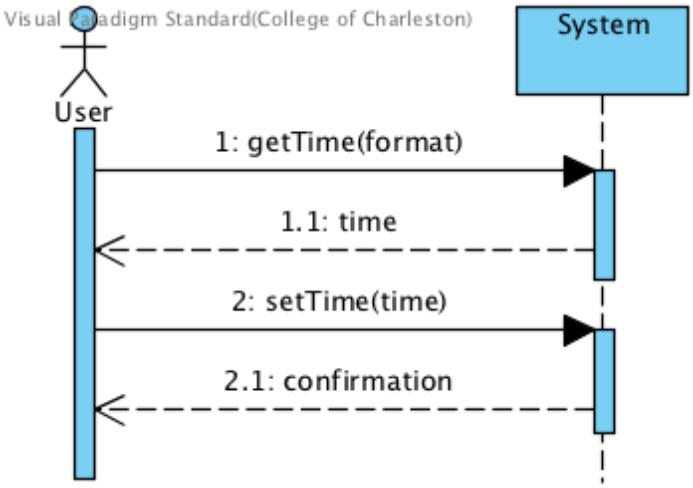
Team ültraLiteBeam
Miki Sugimoto
John-Michael Baldy
Ben Muldrow

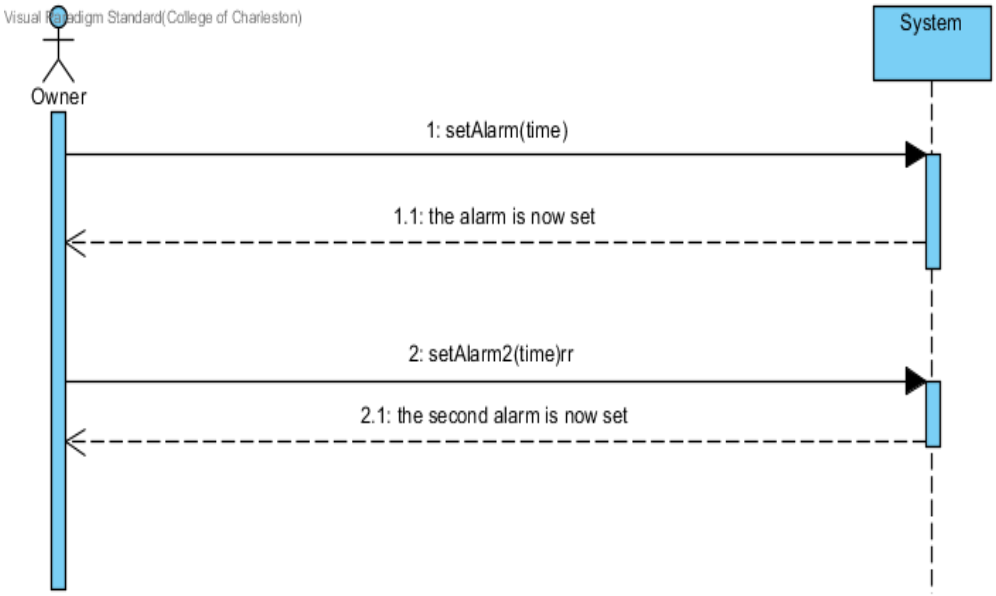
System Sequence Diagrams and Operation Contract

System Sequence Diagram

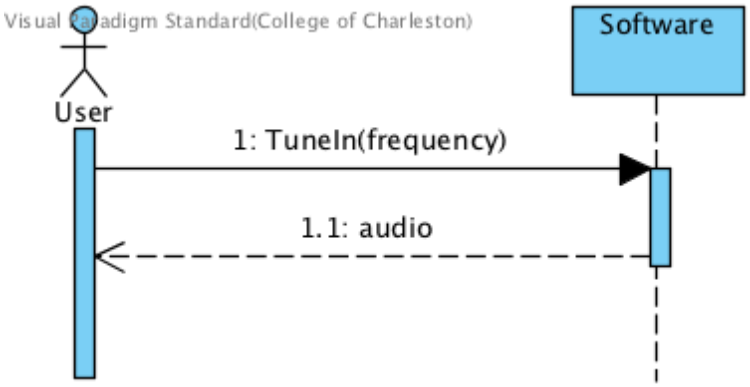
A) Read/ Set Time



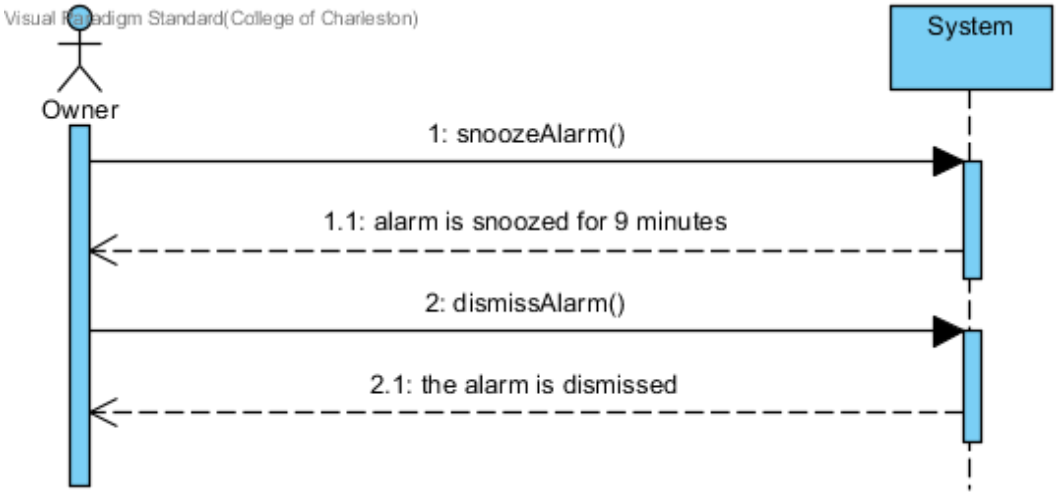
B) Set An Alarm



C) Tune Into Radio



D) Snooze Alarm



Operation Contracts

Name	tuneIn(frequency)
Responsibilities	Get the audio
Cross References	Use case “Listenin’ to the radio”
Exceptions	none
Preconditions	There is a usable radio frequency in the area
Postconditions	Radio sounds at the correct frequency

Name	setAlarm(time)
Responsibilities	Sets an alarm at a specified time
Cross References	Use case “Set an alarm”
Exceptions	none
Preconditions	Empty alarm slot or reset alarm which has been set previously
Postconditions	Alarm sounds at correct time

Name	getTime()
Responsibilities	Display correct time
Cross References	Use case “Set the time”
Exceptions	none
Preconditions	There is electricity. The clock is set correctly.
Postconditions	System displays correct time

Name	snoozeAlarm()
Responsibilities	Delay alarm by 9 minutes
Cross References	Use case “Hit the Snooze”
Exceptions	none
Preconditions	Snooze button is activated. Alarm was going off.
Postconditions	Alarm is delayed by 9 minutes

Objects

System:

- Clock
    - Current Time
- Clock Controller
    - Update clock object
- Radio
    - Frequency
    - AM or FM
    - Volume
- Radio Controller
    - Update radio object
- Alarm1
    - Time
    - On/Off
- Alarm2
    - Time
    - On/Off
- Alarm Controller
    - Update alarm objects
- Super Controller
    - Interact with controllers and UI
- UI
    - Act as user and super controller intermediary