### : System

### Attributes

radio: Radio clock: Clock alarm1: Alarm alarm2: Alarm volume: int

### Operations

startRadio() stopRadio() startTune() stopTune() snooze() switchTimeFormat() updateTimeFormat() setTime() setAlarm()

### : Clock

### Attributes

time: int[]

timeFormat: boolean

# Operations

setTime()
getTime()
switchTimeFormat()

#### : Alarm

### Attributes

alarmTime: int[] alarmOption: String sounding: boolean

# Operations

setAlarmTime() getAlarmTime() setAlarmOption() getAlarmOption() setSounding() getSounding() snooze()

#### : Radio

### Attributes

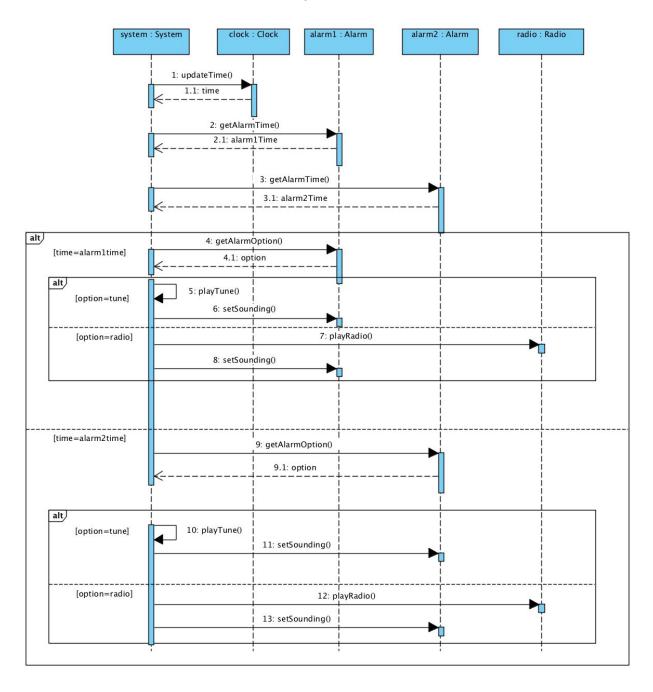
radioType: String fmStation: double amStation: int

### Operations

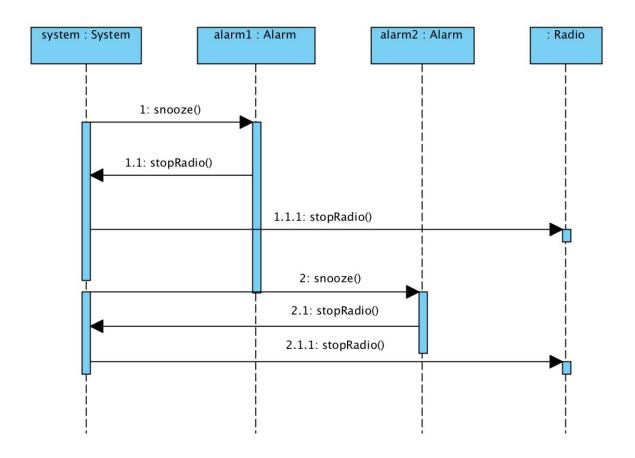
startRadio() stopRadio() incrementStation() decrementStation()

Instance Name	<u>Class</u>	<u>Responsibilities</u>	<u>Methods</u>	Collaborators	<u>Attributes</u>
<u>system</u>	System	- Creates the objects of the alarm clock - Manages the objects of the alarm clock - Manages interactions between the alarms and clock and between the alarms and radios - Knows the volume of the system	startRadio() stopRadio() startTune() stopTune() snooze() switchTimeFormat() updateTimeFormat() setTime() setAlarm()	clock alarm1 alarm2 radio	radio: Radio clock: Clock alarm1: Alarm alarm2: Alarm volume: int
clock	<u>Clock</u>	- Knows the time of the alarm clock - Knows the time format of the alarm clock	setTime() getTime() switchTimeFormat()	<u>system</u>	time: int[] timeFormat: boolean
<u>alarm1</u>	<u>Alarm</u>	- Knows the time of the first alarm - Knows the radio sounded for the first alarm	setAlarmTime() getAlarmTime() setAlarmOption() getAlarmOption()	<u>system</u>	alarmTime: int[] alarmOption: String sounding: boolean
alarm2		- Knows the time of the second alarm - Knows the radio sounded for the second alarm	setSounding() getSounding() snooze()	<u>system</u>	<u>sounding, boolean</u>
<u>radio</u>	<u>Radio</u>	- Knows the set station of the AM/FM Radio	startRadio() stopRadio() incrementStation() decrementStation()	<u>system</u>	radioType: String fmStation: double amStation: int

# Checking the Alarms



# **Snoozing the Alarms**



# **Changing the Time Format**

