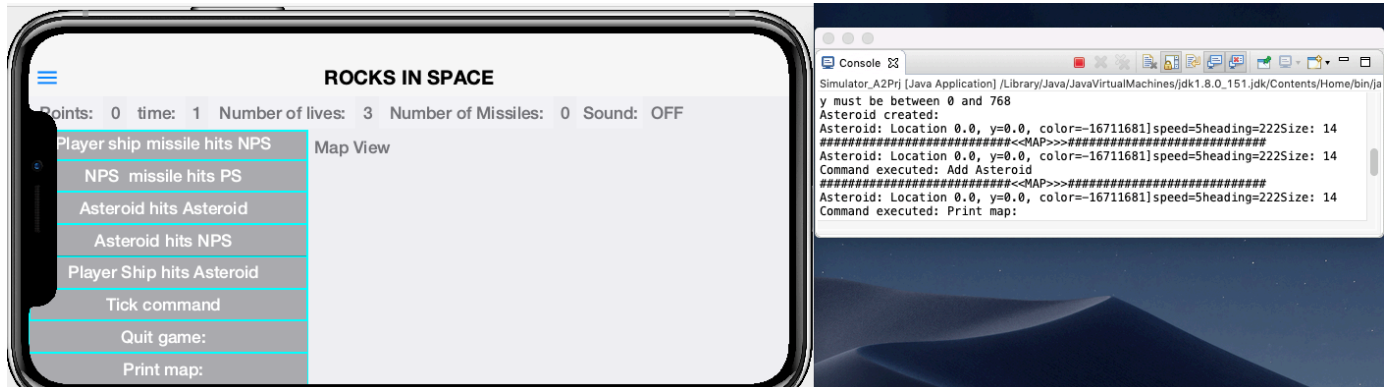
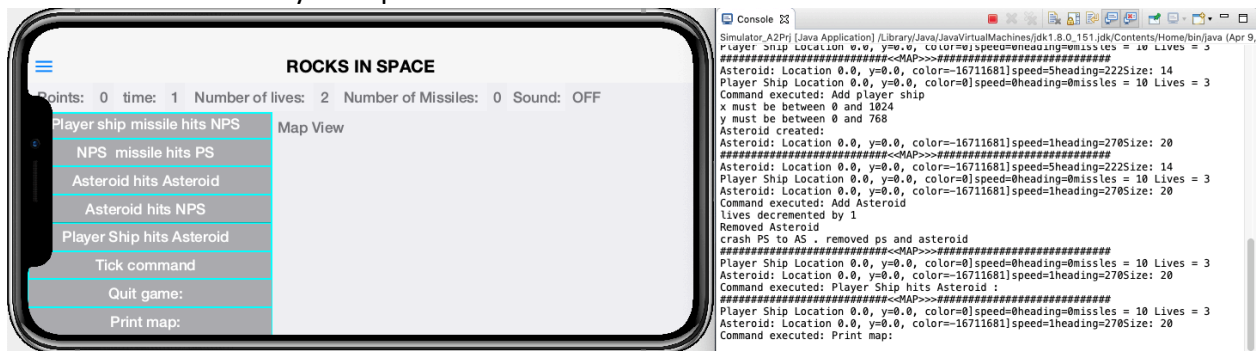


## Test Case 1: Create Asteroid by pushing UI button:



## Test Case 2 Create Player Ship and asteroid collision.



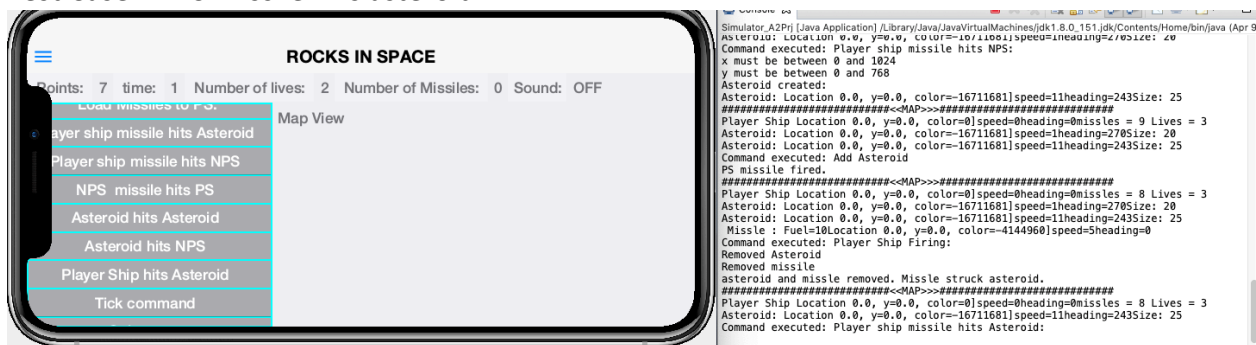
Number of lives was decremented .

## Test Case 3 PS Missile kills NPS



Score on UI incremented and missile and NPS removed.

## Test Case 4: PS Missile kills asteroid.



Score increased by 1 and asteroid and missile removed.

## Test Case 5: PS launcher Turn Left:



The screenshot shows the 'ROCKS IN SPACE' game interface on the left and a console window on the right. The game interface displays the following controls:

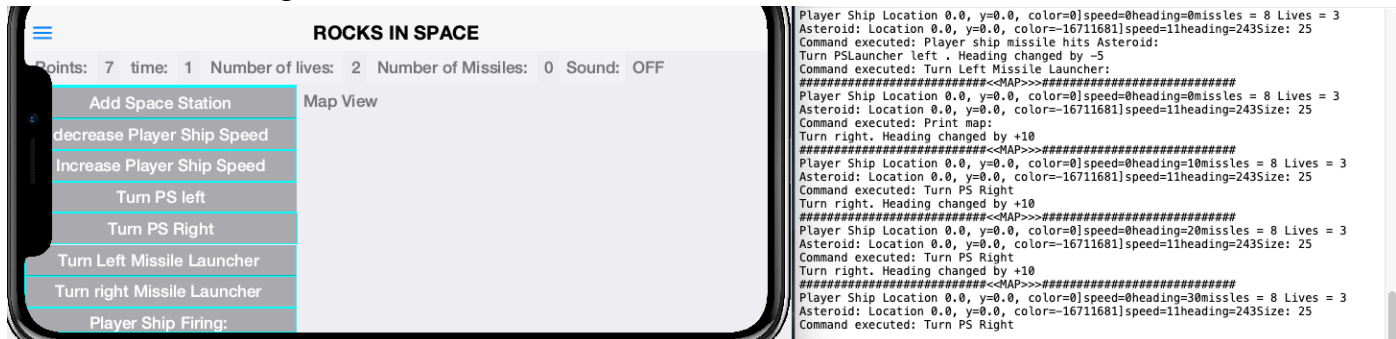
- Points: 7 time: 1 Number of lives: 2 Number of Missiles: 0 Sound: OFF
- Map View
- Add Player Ship
- Add Space Station
- decrease Player Ship Speed
- Increase Player Ship Speed
- Turn PS left
- Turn PS Right
- Turn Left Missile Launcher
- Turn right Missile Launcher

The console output shows the following commands and results:

```

Simulator_A2Prj [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/bin/java (Apr 9
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=0|missiles = 9 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=270|size: 20
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Add Asteroid
PS missile fired.
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=0|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=270|size: 20
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Missile : Fuel=10|Location 0.0, y=0.0, color=-4144960|speed=5|heading=0
Command executed: Player Ship Firing:
Removed Asteroid
Removed missile
asteroid and missile removed. Missile struck asteroid.
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=0|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Player ship missile hits Asteroid:
Turn PS Launcher left . Heading changed by -5
Command executed: Turn Left Missile Launcher:
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=0|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Print map:
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=0|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Turn PS Right:
Turn right. Heading changed by +10
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=10|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Turn PS Right:
Turn right. Heading changed by +10
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=20|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Turn PS Right:
Turn right. Heading changed by +10
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=30|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Turn PS Right
  
```

## Test Case 6 PS turn right:



The screenshot shows the 'ROCKS IN SPACE' game interface on the left and a console window on the right. The game interface displays the following controls:

- Points: 7 time: 1 Number of lives: 2 Number of Missiles: 0 Sound: OFF
- Map View
- Add Space Station
- decrease Player Ship Speed
- Increase Player Ship Speed
- Turn PS left
- Turn PS Right
- Turn Left Missile Launcher
- Turn right Missile Launcher
- Player Ship Firing:

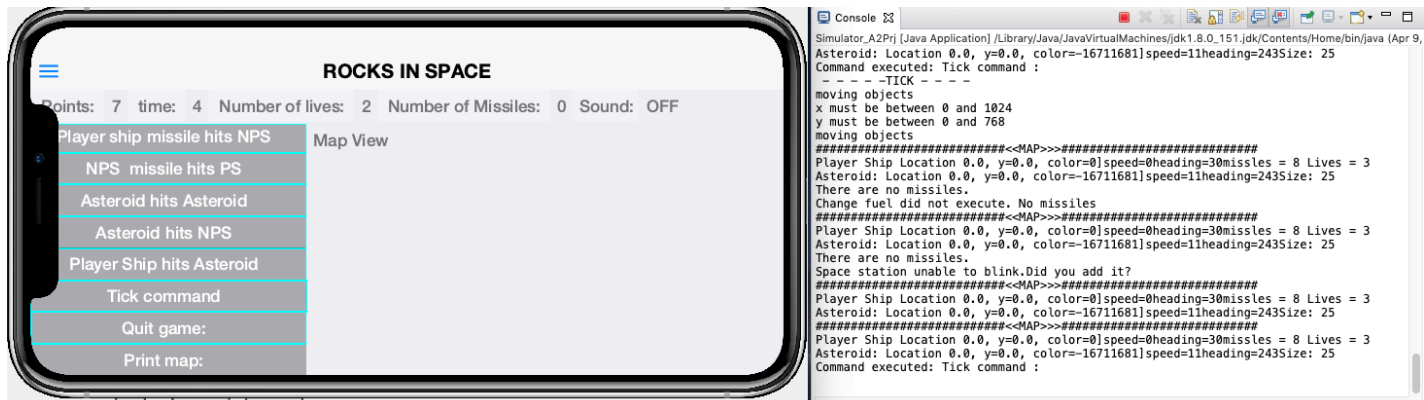
The console output shows the following commands and results:

```

Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=0|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Player ship missile hits Asteroid:
Turn PS Launcher left . Heading changed by -5
Command executed: Turn Left Missile Launcher:
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=0|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Print map:
Turn right. Heading changed by +10
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=10|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Turn PS Right:
Turn right. Heading changed by +10
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=20|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Turn PS Right:
Turn right. Heading changed by +10
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=30|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Turn PS Right
  
```

PS heading changed to 30.

## Test Case 7: tick command



The screenshot shows the 'ROCKS IN SPACE' game interface on the left and a console window on the right. The game interface displays the following controls:

- Points: 7 time: 4 Number of lives: 2 Number of Missiles: 0 Sound: OFF
- Map View
- Player ship missile hits NPS
- NPS missile hits PS
- Asteroid hits Asteroid
- Asteroid hits NPS
- Player Ship hits Asteroid
- Tick command
- Quit game:
- Print map:

The console output shows the following commands and results:

```

Simulator_A2Prj [Java Application] /Library/Java/JavaVirtualMachines/jdk1.8.0_151.jdk/Contents/Home/bin/java (Apr 9
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Tick command :
- - - - -TICK - - - - -
moving objects
x must be between 0 and 1024
y must be between 0 and 768
moving objects
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=30|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
There are no missiles.
Change fuel did not execute. No missiles
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=30|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
There are no missiles.
Space station unable to blink.Did you add it?
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=30|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
#####<<MAP>>>#####
Player Ship Location 0.0, y=0.0, color=0|speed=0|heading=30|missiles = 8 Lives = 3
Asteroid: Location 0.0, y=0.0, color=-16711681|speed=1|heading=243|size: 25
Command executed: Tick command :
  
```

Ticked 3 times. Tick command executed and time increased on UI.

Test case 8: clicking sound check button:



Sound button checked. And sound on UI switched to ON.

TestCase 9: about Command dialog box.

