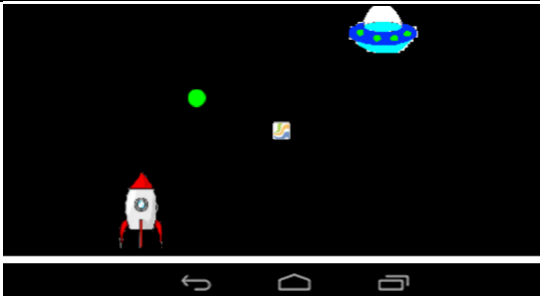
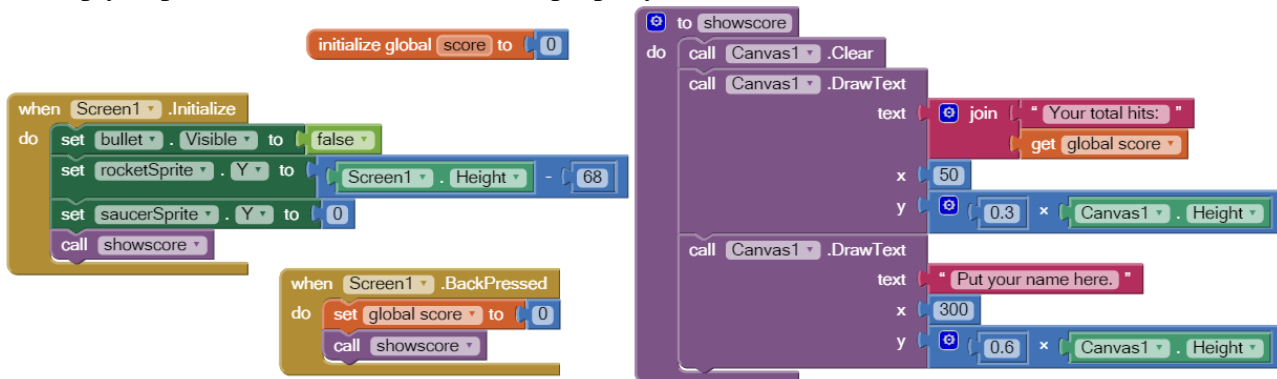


Lab 6 Space Invaders by Nathan Chao

Go to <http://appinventor.mit.edu/explore/ai2/space-invaders.html> to get all the explanations, graphics and working block functions you need to get the simple game up and working.

	<p>Components</p> <ul style="list-style-type: none"> Screen1 <ul style="list-style-type: none"> Canvas1 <ul style="list-style-type: none"> saucerSprite bullet rocketSprite Clock1 	<p>Properties</p> <p>Canvas1</p> <p>BackgroundColor: Black</p> <p>BackgroundImage: None...</p> <p>FontSize: 14.0</p> <p>Height: Fill parent...</p> <p>Width: Fill parent...</p> <p>LineWidth: 3</p> <p>PaintColor: Cyan</p> <p>TextAlignment: left</p> <p>Visible: <input checked="" type="checkbox"/></p>	<p>Screen1</p> <p>ScreenOrientation: Landscape</p> <p>Scrollable: <input type="checkbox"/></p> <p>ShowStatusBar: <input type="checkbox"/></p> <p>Sizing: Fixed</p> <p>Title: Screen1</p> <p>TitleVisible: <input type="checkbox"/></p>
<p>To get a minimal grade just use the existing blocks in the tutorial on a FULL SCREEN and no labels or buttons. Set Screen1 up as shown in right side of this table. Eliminate both status and title bar to maximize game screen area. That means you have to use screen itself for score display and Screen1 back button as reset or start button. So delete ScoreLabel and ResetButton and replace with blocks shown below.</p>	<p>Refer to Lab 4 to see how the label and button was replaced.</p>	<p>Landscape mode with no status or title bars showing.</p>	

To help you position the rocket and saucer properly in the full screen with no title or status bars, see below.



In this lab, a grade better than C+ (minimal working full screen landscape version) will depend on how much you can improve this game app.

Download the SpaceInvaders2 app apk file from BB to see how an enhanced SpaceInvader would work.

Lab 6 SpaceInvaders2

Adjustments I made for SpaceInvaders2 app placed on BB

- a. Changed bullet x position so bullet emerges more near the center point of the rocket
- b. reduced the time of the saucer in one place to 2 seconds from 3
- c. Set saucer in motion with a speed of 2 (not too fast or bullet will have trouble with a fast moving target.
- d. make sure saucer doesn't turn upside down in wall collisions.
- e. Made sure saucer bounced of edge like a ball (see google app inventor video tutorial on Ball Bounce)
- f. Increased the bullet speed to 18 to compensate for shorter saucer time and new saucer movement
- g. Made saucer Y random near the top 1/3 of the screen of Y from 0 to 100 pixels.
- h. Tallied number of hits each time bullet collision routine occurs until it reaches 10
- i. Dropped in Clock2 that starts when game start on Screen1back button.
- j. Clock stops on 10th hit like lab 5 and a final time is displayed.

For those students able to add the mods, to get a higher grade, you need to explain by showing the modified block and the original block and explaining how they differ.

Report requirements for grade above C+

1. Screenshots of initial and final (game end time) and your name shown onscreen in your enhanced app.
2. List all the improvements you made like I did above.
3. Show original and modified blocks (as many as you modified or added) and explain how your modification of that block affected changes from the original behavior.

a.

Origina block
Modified or added block
Explain how your modification of that block affected changes from the original behavior.

b.

Origina block
Modified or added block
Explain how your modification of that block affected changes from the original behavior.