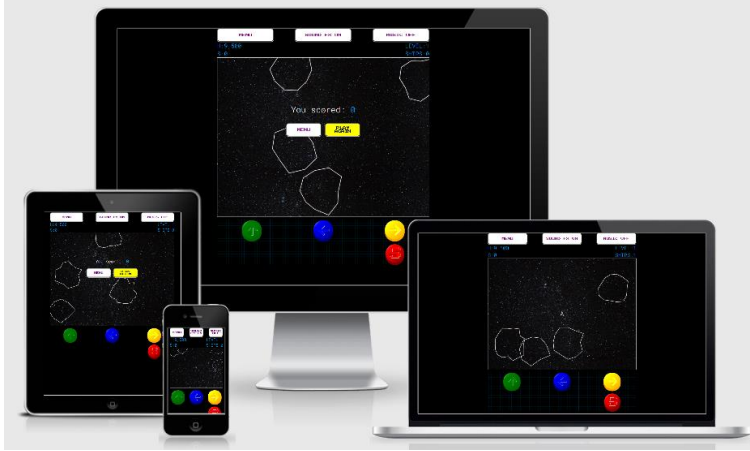





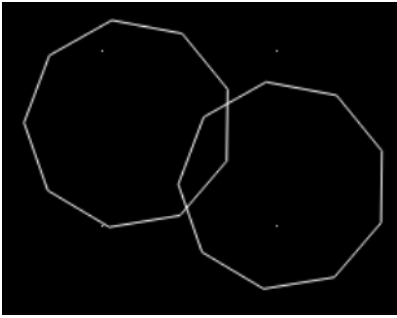
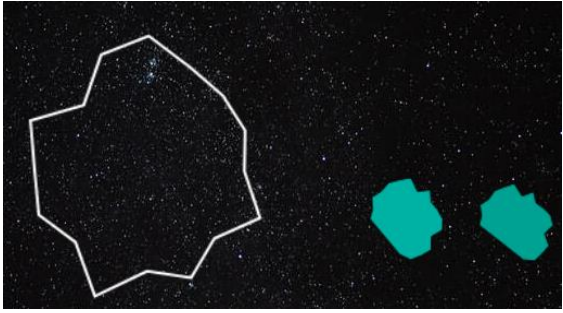

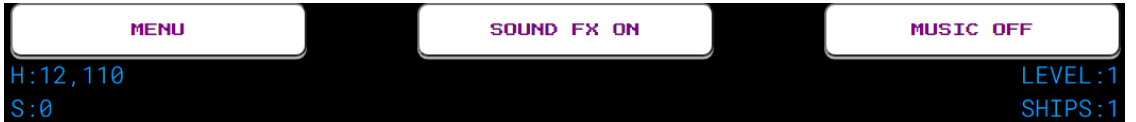
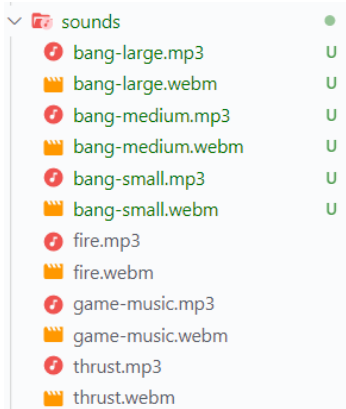
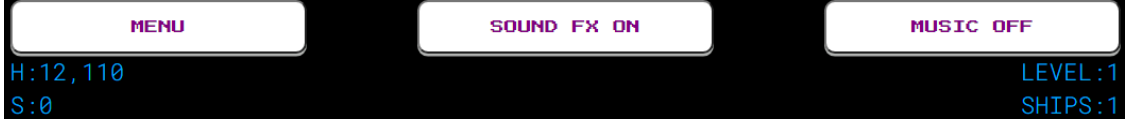





#	Description	Screenshot
1	As a user, I need to have a responsive game, playable from any device (mobile, tablet, desktop).	 <p>Comment: Game is fully responsive from any device.</p>
2	As a user, I should have an invincibility shield for a set period of time when game restarts.	 <p>Comment: When the game restarts, the ship has a 3-second invincibility shield. This prevents immediate collisions with asteroid(s).</p>
3	As a user, I should see GAME OVER when I lose all my lives.	 <p>Comment: GAME OVER is displayed when SHIPS: 0</p>


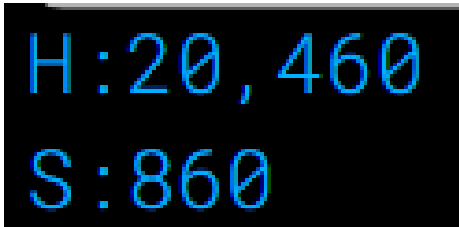
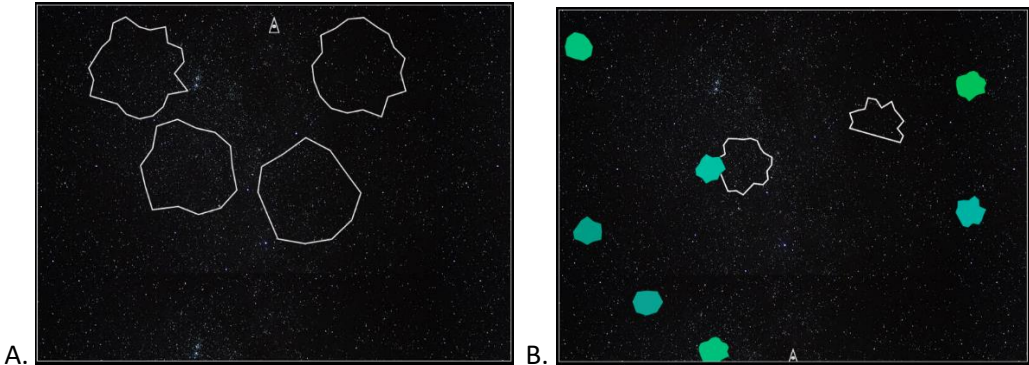
#	Description	Screenshot
4	As a user, I should progress through the game via Levels i.e. Level 1, Level 2, etc.	 <p>Comment: game progressions is via Levels. There are an infinite number of levels, dependent on how long the player can survive. With each level comes an increasing number (and speed) of asteroids.</p>
5	As a user, I should have a triangular ship to match the original game.	<div>   </div> <p>A. B.</p> <p>Comment: finalized ship is an enclosed triangle (B). It was originally an inverted V (A).</p>
6	As a user, I should see irregular shaped asteroids.	<div>   </div> <p>A. B.</p> <p>Comment: original asteroids were regular polygons (A). Finalized asteroids were irregular in shape (B).</p>

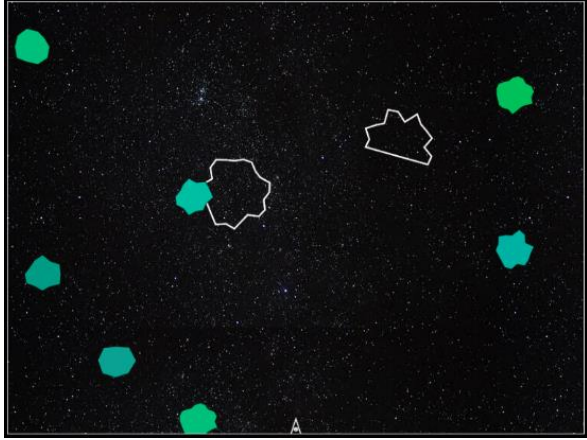
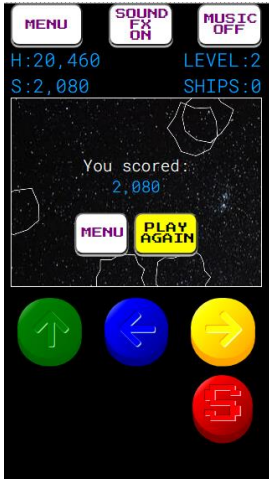
#	Description	Screenshot
7	As a user, I should see an explosion when I shoot an asteroid.	 <p>Comment: asteroids explode when shot.</p>
8	As a user, I should be able to turn soundfx on and off as a menu option.	 <p>Comment: SOUND FX ON / OFF is a menu option. When the button is clicked it toggles between ON / OFF.</p>
9	As a user, I should hear different sound-fx while playing the game.	 <p>Comment: individual sound effects provided for ship thrust, fire, small asteroid explosion, medium asteroid explosion, large asteroid explosion.</p>

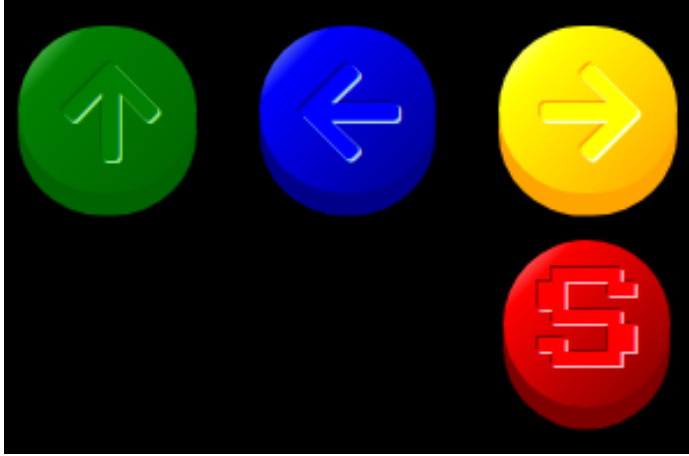
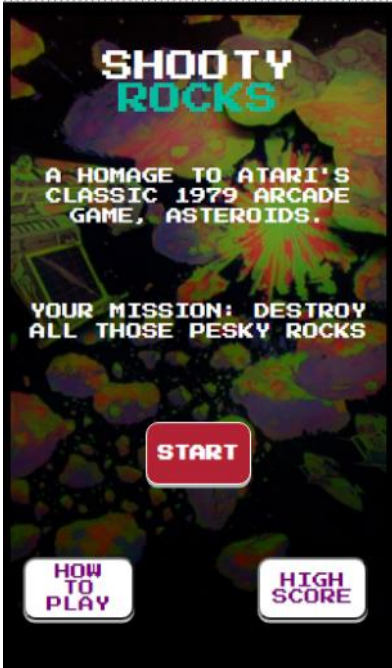

#	Description	Screenshot
10	<p>As a user, I should have a visual cue for the number of lives I have during the game.</p>	 <p>Comment: visible within the in-game dashboard SHIPS: 3 to begin with, which eventually goes to 0.</p>
11	<p>As a user, I should be able to shoot the asteroids with bullets.</p>	 <p>Comment: bullets are displayed as small yellow squares which the player can shoot using keyboard 'space', or mobile 'S' button.</p>
12	<p>As a user, I should be able to shoot bullets using keyboard input.</p>	<pre>//for setting the keysArray value for a particular key to false when that key is unpressed //if the key that is unpressed is the KEY_SHOOT, then fire a bullet function handleKeyUp(e){ keysArray[e.keyCode] = false; if(ship.visible) { if (e.keyCode === KEY_SHOOT){ if(_soundfxOn == ON) { FIRE_SOUND.play(); } bulletsArray.push(new Bullet(ship.angle)); } } }</pre> <p>Comment: relevant code in place to allow the user to shoot bullets (see User Story 11) using keyboard input.</p>

#	Description	Screenshot
13	As a user, I should be able to move the ship using keyboard input.	<pre>//for checking if ship is moving forward, left, or right function checkKeyboardInput() { ship.movingForward = keysArray[KEY_UP_ARROW]; if (keysArray[KEY_LEFT_ARROW]) { ship.rotate(LEFT); } if (keysArray[KEY_RIGHT_ARROW]) { ship.rotate(RIGHT); } }</pre> <p>Comment: part of the code to move the ship left, right and thrust forward using keyboard input.</p>
14	As a user, I should be able to move my ship forwards, backwards, left, and right.	 <p>Comment: using keyboard input, ship can move forward, right, down, left, and any angle in-between.</p>
15	As a user, I should have my ship render onto the centre of the canvas at the start of the game.	 <p>Comment: ship is always rendered to centre of canvas at the start of the game.</p>

#	Description	Screenshot
16	As a user, I should feel friction when my ship is no longer moving forward, and my ship should finally stop.	<pre>//add friction this.velY *= this.frictionConstant; this.velX *= this.frictionConstant; //update x and y positions of ship this.y -= this.velY; this.x -= this.velX;</pre> <p>Comment: code in place to add friction to the moving ship. The ship will eventually stop.</p>
17	As a user, I should be given 3 lives at the start of the game.	 <p>Comment: user is always provided with x3 ships at the start of the game.</p>
18	As a user, I should have a visual cue (explosion) when my ship is hit by an asteroid.	 <p>Comment: ship explodes when hit by an asteroid.</p>

#	Description	Screenshot
19	As a user, I should have a visual cue (afterburner at back of ship) when my ship is thrust forward.	 <p>Comment: afterburner present at back of ship when thrust forward.</p>
20	As a user, I should see my score increment every time I shoot an asteroid. Different asteroids get different points.	 <p>Comment: score (identified by 'S' above) increments every time the player shoots an asteroid.</p> <pre>const SCORE_LARGE_ASTEROID = 20; //for setting score of hitting large asteroid const SCORE_MEDIUM_ASTEROID = 50; //for setting score of hitting medium asteroid const SCORE_SMALL_ASTEROID = 100; //for setting score of hitting small asteroid</pre>
21	As a user, I should see my ship reappear on the opposite side of the screen if I move off-screen.	 <p>Comment: ship on top of screen (A) reappears at bottom of screen (B) when moved off-screen. This works anywhere on the canvas.</p>

#	Description	Screenshot
22	<p>As a user, I should see the large and medium sized asteroids break up into x2 smaller asteroids when hit by a bullet.</p>	 <p>Comment: large asteroids break up into x2 medium (white colored) asteroids. Medium asteroids break up in x2 small (green colored) asteroids.</p>
23	<p>As a user, I should find the game easy to begin with, and as the game progresses it should get increasingly more difficult.</p>	<pre>//for setting up an asteroid belt function setupAsteroids() { //set the speed of the asteroid based on the level number let speedAsteroid = _level * 0.2 + 1;</pre> <p>Comment: See User Story 4. Progression is made up of levels. With each level the number of large asteroids increase by x1 (Level 1 has x4 large asteroids, Level 2 has x5 large asteroids, etc.) and the speed of all asteroids increases as each level increases - determined by code above.</p>
24	<p>As a user, I should be able to shoot bullets by tapping a "FIRE" button when on mobile.</p>	 <p>Comment: on mobile the user shoot bullets by tapping the 'S' standing for 'shoot' button. The text 'FIRE' as per user story was replaced by a more universal single letter 'S'.</p>

#	Description	Screenshot
25	<p>As a user, I should be able to move the ship using swipes or a button keypad when playing the game on mobile.</p>	 <p>Comment: on mobile, a gamepad controller was created, with up, left, right, and 's' buttons allowing the user to move around the ship.</p>
26	<p>As a user, I should be able to click on a HIGH SCORES menu button, and be presented with the highest score.</p>	<div> <div>  <p>A.</p> </div> <div>  <p>B.</p> </div> </div> <p>Comment: user clicks on 'HIGH SCORE' menu button (A) and is presented with 'HIGH SCORE' screen (B).</p>