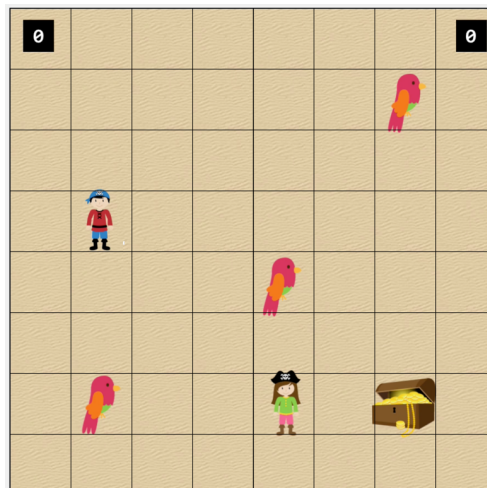


1. Open the Greenfoot scenario `PirateIsland` and familiarise yourself with its contents. Complete the world as instructed below: [26]
 - (a) Create a new world called **Island**. Set the background image within this world to an 8 x 8 grid using the image `island.jpg`
 - (b) Populate the world with a **Pirate**, one **Treasure** and at least three instances of **Parrots**.
 - (c) Edit the **Parrot** object so that it turns and moves around the world at random.
 - (d) Edit the **Pirate** object so that it moves at an appropriate speed in the direction of the arrow keys when pressed.
 - (e) Edit the **Pirate** object so that it “collects” **Treasure** when they collide (removes **Treasure** from the world).
 - (f) Add a sound which will play every time the **Pirate** “collects” **Treasure**.
 - (g) Add a **counter**. Edit the code so that **counter** displays how much **Treasure** has been “collected” by the **Pirate**.
 - (h) Edit the code so that **counter** loses a point (1 point has been deducted) if the **Pirate** collides with a **Parrot**.
 - (i) Edit the **Pirate** object so that after it “collects” **Treasure**, the **Treasure** object reappears in a random location on the **island**.
 - (j) Populate the world with a **firstMate**, edit the object so that it moves at an appropriate speed in the direction of the W, A, S and D keys when pressed.
 - (k) Edit the **firstMate** objects so that it “collects” **Treasure** when they collide (removes **Treasure** from the world) then plays a sound.
 - (l) Add a **counter2**. Edit the code so that **counter2** displays how much **Treasure** has been “collected” by the **firstMate**.
 - (m) Edit the code so that **counter2** loses a point (1 point has been deducted) if the **firstMate** collides with a **Parrot**.
 - (n) Edit the **firstMate** object so that after it “collects” **Treasure**, the **Treasure** object reappears in a random location on the **island**.
 - (o) Save your completed world as `finalPirateIsland`



PirateIsland Mark Scheme

Award one mark per bullet point

1	<i>a</i>	<ul style="list-style-type: none"> World appears on load in 8x8 grid with the island.jpg background
	<i>b</i>	World is pre-populated on load with: <ul style="list-style-type: none"> one Pirate one Treasure chest three or more Parrots
	<i>c</i>	<ul style="list-style-type: none"> Parrot moves randomly around world Random movement implemented using getRandom()
	<i>d</i>	<ul style="list-style-type: none"> Pirate moves around the world according to arrow keys Pirate moves with a reasonable relative speed to Parrot
	<i>e</i>	<ul style="list-style-type: none"> Treasure is removed from world on collision with Pirate
	<i>f</i>	<ul style="list-style-type: none"> Sound plays when Pirate and Treasure collide
	<i>g</i>	<ul style="list-style-type: none"> Adding counter to world counter increases when Pirate and Treasure collide
	<i>h</i>	<ul style="list-style-type: none"> counter decreases when Pirate and Parrot collide implementation via parameter passing as opposed to wholly new method
	<i>i</i>	<ul style="list-style-type: none"> Treasure respawns at a different location each time
	<i>j</i>	<ul style="list-style-type: none"> Adding firstMate to the world firstMate moves around the world according to W,A,S and D keys firstMate moves with a reasonable relative speed to Parrot and Pirate
	<i>k</i>	<ul style="list-style-type: none"> Treasure is removed from world on collision with firstMate Sound plays when firstMate and Treasure collide
	<i>l</i>	<ul style="list-style-type: none"> Adding counter2 to world counter2 increases when firstMate and Treasure collide
	<i>m</i>	<ul style="list-style-type: none"> counter2 decreases when firstMate and Parrot collide implementation via parameter passing as opposed to wholly new method
	<i>n</i>	<ul style="list-style-type: none"> Treasure respawns at a different location each time
	<i>o</i>	<ul style="list-style-type: none"> Greenfoot world saved correctly as finalPirateIsland