

Code Club Team Challenge 2017 - Planning Sheet

Name/Title	<p><i>Fill this in <u>LAST</u> - this is the LEAST important detail of your game. You are more likely to come up with an interesting name for your game once you have a clearer view of the overall game design and goals.</i></p> <div style="border: 1px solid black; height: 40px; margin-top: 10px;"></div>												
Synopsis	<p><i>Provide a short description of the game setting (outer space, city, jungle etc...) and the background story. This sets the scene and provides a useful context for identifying relevant game characters and scenery to include in the game. Very similar to a basic book synopsis.</i></p> <p><u>Setting:</u></p> <div style="border: 1px solid black; height: 25px; margin-top: 5px;"></div> <p><u>Background Story:</u></p> <div style="border: 1px solid black; height: 75px; margin-top: 5px;"></div>												
Goal(s)	<p><i>A short statement of the goal(s) of your game. i.e. what you need to do to score highly, complete the game, or progress through each of the levels. The descriptions of the example games provided in the homework sheet are a good guide for the kind of thing to write here.</i></p> <div style="border: 1px solid black; height: 60px; margin-top: 10px;"></div>												
Game Style/Genre	<p><i>Identify your chosen game style by placing an X in one of the boxes below.</i></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 5%; text-align: center;"> </td><td>Arcade Adventure (e.g. Pyjamarama, Marsport)</td></tr> <tr> <td style="text-align: center;"> </td><td>Multi-Screen Maze (e.g. Robin of the Wood, Sabre Wulf)</td></tr> <tr> <td style="text-align: center;"> </td><td>Platform (e.g. Jet Set Willy, Booty)</td></tr> <tr> <td style="text-align: center;"> </td><td>Shoot 'em Up (e.g. JetPac, Exolon)</td></tr> <tr> <td style="text-align: center;"> </td><td>Skill (e.g. Marble Madness, Decathlon)</td></tr> <tr> <td style="text-align: center;"> </td><td>Puzzle (e.g. Loco-Motion)</td></tr> </table>		Arcade Adventure (e.g. Pyjamarama, Marsport)		Multi-Screen Maze (e.g. Robin of the Wood, Sabre Wulf)		Platform (e.g. Jet Set Willy, Booty)		Shoot 'em Up (e.g. JetPac, Exolon)		Skill (e.g. Marble Madness, Decathlon)		Puzzle (e.g. Loco-Motion)
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Game World Type	<p><i>What kind of game world does your game have? Mark with an X.</i></p> <table border="1" style="width: 100%; border-collapse: collapse; margin-top: 10px;"> <tr> <td style="width: 5%; text-align: center;"> </td><td><u>Single Screen:</u> The game takes place on a single screen.</td></tr> </table>		<u>Single Screen:</u> The game takes place on a single screen.										
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Game World Sketch	<p>Sketch out a design for your game screen, game levels or game map on a separate sheet of paper. Write a short description for each screen, highlighting any important features. Where relevant, specify which screen (if any) lies to the North/East/South/West.</p> <p>As we have limited development time, don't be too ambitious. e.g. for multi-screen mazes, aim for a map that spans a grid of no more than 3 screens by 3 screens. For arcade adventures, or level-based games aim for a level or game world containing no more than 6 screens. Less is fine.</p>						
Main Character Description	<p>Provide a brief description of your game's main character. This is the sprite that the player controls. Does your main character possess a special power? If so, does this power require completion of a task or collection of a power-up object to be activated? Once activated, is its effect limited by time or number of uses?</p> <div></div>						
Main Character Sketch	<p>Provide a drawing of the main character on a separate sheet of paper, including any poses that you require for animating it. If it has a special power, describe below how you could graphically represent its activation?</p> <div></div> <p>We hope you will consider creating and animating this character for your game. However, we recommend you use a "placeholder" sprite (such as the cat) during development and only consider replacing this with your own sprite at the end if there is sufficient time to create one.</p>						
Other Characters	<p>Provide a brief description for up to three more characters in your game. For a shoot 'em up, these might be enemy alien types. For a platform game, these might be enemies with different patrolling behaviour. For an arcade adventure, these might be people that can be persuaded to help you in your quest. Describe any important character behaviour, strengths and weaknesses or ways in which they interact with the main character.</p> <p>As there is limited development time, we STRONGLY recommend that you rely on the use of sprites from the Scratch library to represent these characters in your game. Alternatively, you could represent these characters with a set of different coloured balls marked with letters (e.g. W for witch, A for alien). Appropriate sprites can be substituted in at a later stage.</p> <p>Character 1 NAME: SCREEN ID:</p> <div></div>						

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Important Items	<p>Identify any important items that exist within your game and describe what makes them important. Where can these items be found in your game? What actions can you perform with these items (e.g. Wear, Use, Read...)? What happens when you perform those actions? E.g. “using the nuke immediately destroys anything within 100 pixels of your spaceship”.</p> <table><thead><tr><th>ID</th><th>Item Name</th><th>What makes the item important?</th><th>Actions</th><th>Screen ID</th></tr></thead><tbody><tr><td>1</td><td></td><td></td><td></td><td></td></tr><tr><td>2</td><td></td><td></td><td></td><td></td></tr><tr><td>3</td><td></td><td></td><td></td><td></td></tr><tr><td>4</td><td></td><td></td><td></td><td></td></tr><tr><td>5</td><td></td><td></td><td></td><td></td></tr></tbody></table>	ID	Item Name	What makes the item important?	Actions	Screen ID	1					2					3					4					5				
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Game Features	<p>Identify THREE features from the game features listed below that you would like to include in your game. Number these features in order of importance, starting with 1 for the feature that you plan to develop first.</p> <table><tr><td></td><td>Doors or portals: Link different parts of your game world through intergalactic worm holes or enter the interior of a house or shop by walking through its door on the street.</td></tr><tr><td></td><td>Locked doors / chests: Some doors and chests require keys, levers, switches, special objects or combinations of objects to open them.</td></tr><tr><td></td><td>Jumping: While jumping is often associated with platform games, it can also be used</td></tr></table>		Doors or portals: Link different parts of your game world through intergalactic worm holes or enter the interior of a house or shop by walking through its door on the street.		Locked doors / chests: Some doors and chests require keys, levers, switches, special objects or combinations of objects to open them.		Jumping: While jumping is often associated with platform games, it can also be used																								
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	<div> <div>simply as a way of avoiding floor level hazards in many other games.</div> <div>Shooting: If you can't avoid it, kill it with firepower.</div> <div>Use of ladders: Why jump when you can climb?</div> <div>Object interaction: Some objects are more than just game currency to be collected for points. For instance, a scroll can be read for information, gold ingots can be traded for goods, lost property can be returned to its rightful owner, armour can be worn for protection and a torch can be used to light up a dark room.</div> <div>Object combination: Some objects are only effective when combined with others. For instance, a torch is no use without batteries.</div> <div>Character energy: Energy is depleted when you get hurt, tired or hungry and restored by collecting items such as bandages, medicine or food. Lose all your energy and it's game over.</div> <div>Special power objects: Collect objects to be granted special powers such as invincibility, invisibility, the ability to shoot, fly or freeze time.</div> <div>Timers: Some tasks have a strict time limit with a clock ticking against you. Score more points by completing the task quickly. Too slow and you die.</div> <div>Timing sensitive tasks: When throwing a ball, the moment you let go of the ball can determine its trajectory and therefore the distance it travels before it hits the ground.</div> <div>Character interaction: Some characters in your game can be more than just background extras. They may have important information to impart or possess objects that you need to complete a task.</div> <div> Other: Invent a game feature of your own and briefly describe it here: <div></div> </div> </div>
Game Score	<p><i>Is the purpose of your game to achieve a high score? If so, describe the game's scoring mechanism below. Is it based on items collected such as stars, coins or bottles. Is it based on time remaining after completing the level. Are there special items or tasks that score more points, super-charge your scoring ability (score multipliers) or grant you more time?</i></p> <div></div>
Game Over Criteria	<p><i>What can cause your game to end prematurely? Running out of time, losing lives or energy? How do you lose or gain lives, energy or time? Can anything make your main character temporarily invincible, or pause time?</i></p> <div></div>



Description

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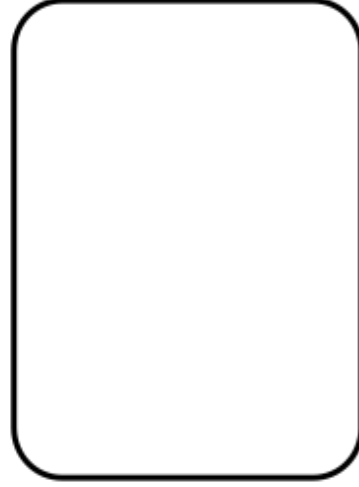
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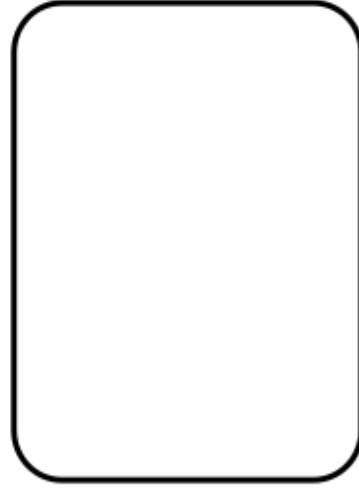
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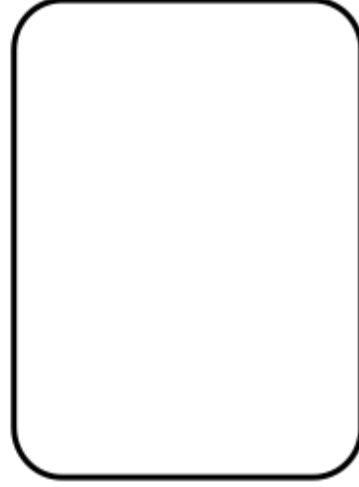
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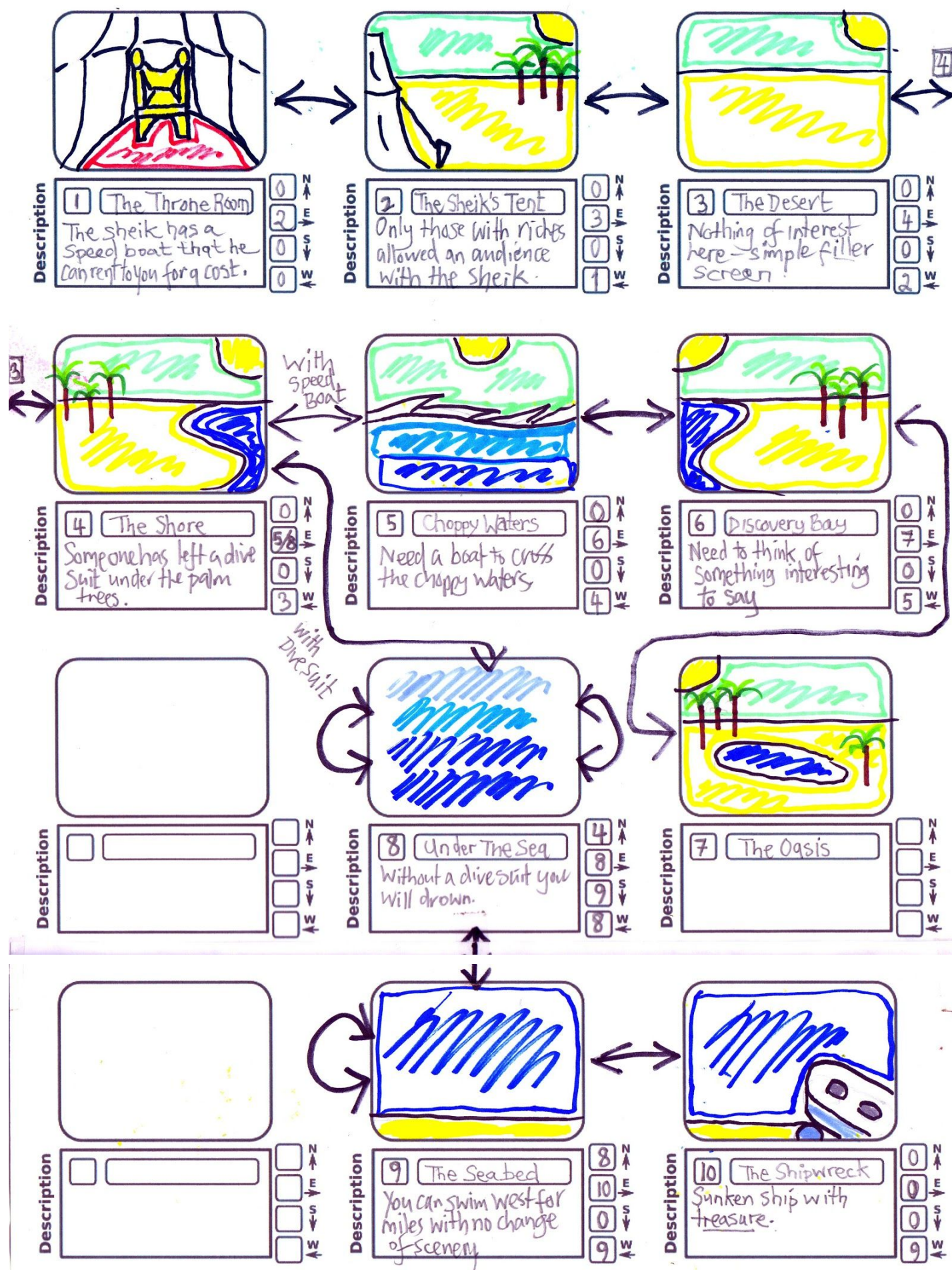


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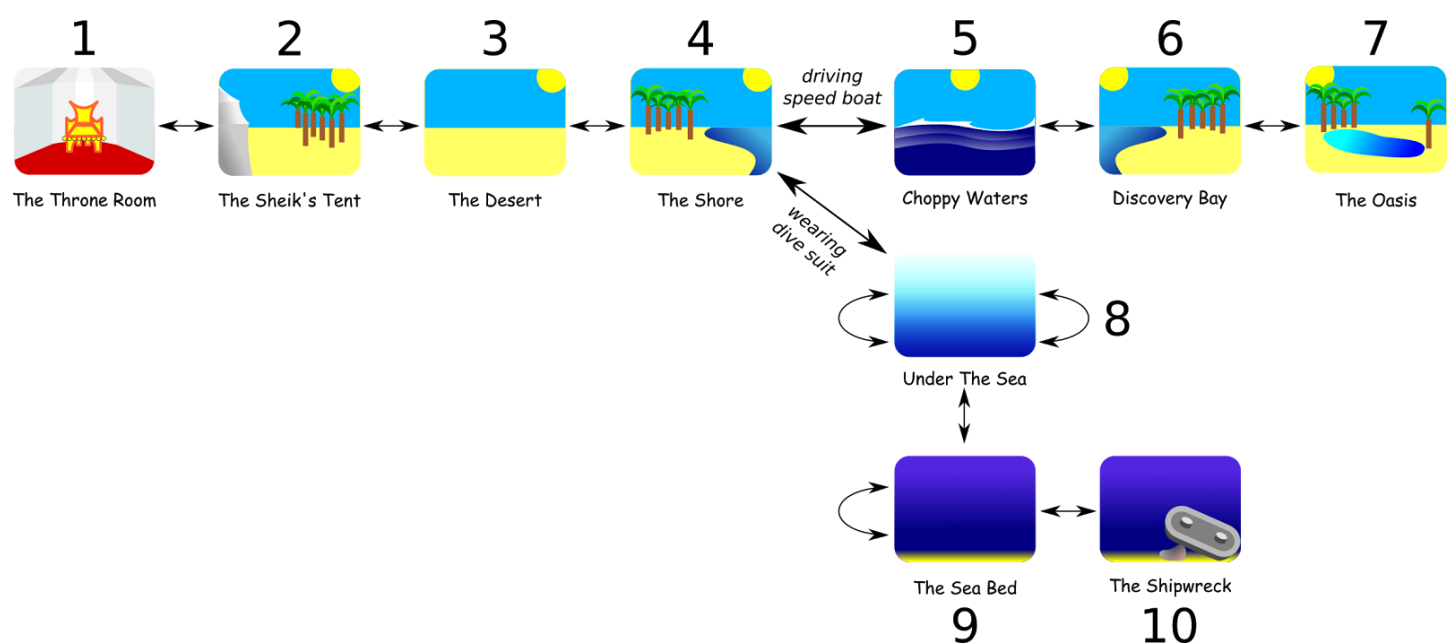


Below is an example hand-drawn game map sketch for a desert-based arcade adventure game. It doesn't need to be highly detailed or carefully coloured in. An essence of what each screen contains and the regions of different colour is sufficient to give the screen designer a good idea of what to create.



Below is what the sketch looks like after rendering the screens in Inkscape. These have been created with simple shapes with their edges pulled and stretched (like elastic bands) in places and gradient fills. I have also used shape differences - imagine laying paper shapes on top of each other and cutting out the overlapping region. The leaves of the palm trees are created from differences of two circles slightly offset from each other.

Simple tricks can be used to multiply up the number of screens very quickly, with minimal effort. Many of the screens use the same basic backdrop (sand, sky and sun) with just one or two features unique to each screen added on top. Shore and Discovery Bay are actually mirrors of each other (two screens for the price of one). Some of the underwater screens actually back loop on themselves in certain directions to give the impression of vast open waters where everything seems the same (without the need to create extra screens - the map definition does all the work for us here). I can walk any interested kids through some of the basic techniques used here.



Note the numbers in the **N/E/S/W** boxes alongside each of the screens in the hand-drawn version. These denote which screen you will arrive at if you leave the current screen in the direction noted. By filling these in on the game map as we draw it, we can simply cut and paste these numbers directly into a matrix with **N/E/S/W** as rows and **Screens 1, 2, 3,...** as columns. The rows of this matrix then become our **map_north**, **map_east**, **map_south** and **map_west** lists in Scratch (see the stage code in the **4Way Map** and **4Way Maze** demos).

While the example map is heavily arcade-adventure themed, it's worth noting that maps are not unique to arcade adventures. Many games can benefit from the addition of a map. Even a shoot 'em up can make good use of a game map - the classic 80s arcade shoot-em-up game *Commando* (which was also ported to all home computer formats of the time) uses a progression of scrolling scenery leading up to a mission target (a 2Way scrolling Map) but there's nothing to say that you couldn't expand your mission map to a 4Way map, thus adding an element of exploration to your blast-everything-to-kingdom-come mission.