Crash Bandicoot Remake/Willy the Wombat

Design Document

This the design document for the Crash Bandicoot remake which outline each area of design and code within the game we'll be making, what we'll be using to create/develop it and how much we how much we hope to have completed within the 12 Weeks of finishing this project.

As for why we choose Crash Bandicoot we choose with a 3 to 1 vote what game to develop and we all agreed that it was possibly to challenge ourselves to complete the entire Crash Bandicoot game in the time allotted to this project for the next 12 weeks.

But a key reason for creating Crash is that it is an instantly recognisable game to most people on the planet, and with Yooka Laylee bringing back the spirit of the Banjo Kazooie games we thought it a good time to show off what a Crash Bandicoot remake can look like on today's systems.

Design

The design of this crash remake will be inspired by Naughty Dogs original game and concept art, however details will be added to make it look more vibrant in the new engines and design applications we'll be using like MayaLT and MudBox.

**Concept Art**

Concept art will be drawn to add more depth and detail from the original game into the new remake.

It will be based on the original games design and sketched on A4 paper, then scanned, possibly coloured in Photoshop and put on to git.

**Level design**

Level design will consist of playing the level getting a feel for it, the scope of it then sketching the length in terms of of Crashs footsteps and then sketching the top down layout on to a page. From there we will use Maya to create the base layout of a level(linear), then add more detail if necessary possibly through other applications like MudBox and add designed in-game objects that aren't animated and then put those assets into the scene in unity and set up a scene which will then be posted up on to GitHub.

**Levels**

**Placement of obstacles and items will be detailed in relation to the amount of Crashs steps to get there.**

**Sections will be how long before crash reaches a checkpoint.**

**Reused levels will cut from this project to save time.**

|  |
| --- |
| Island 1 |
| **N. Sanity Beach** |
| X 49  Start of game 3d level level moving up along the y-axis. After crash jumps of of the laboratory, wakes up at the start of N Sanity Beach Level with objects like Wrecked Ships and Palm trees in front of him. |
| **Section 1**  Falls: 14-15 steps, 19 – 20 steps, 23-24 steps, 25-26 step, 35-36 steps, 39 steps.  Enemies: 10 steps crabs, 23 steps crab, 45 Crab.  Obstructions: Pillar 19-20 steps.  **Section 2**  Music change  Falls: 8-9 steps, 15-16 steps, 23-24 steps, 29-30 steps, Right Path of split 42- 43 steps, 45-50 steps.  Enemy: Turtle 5-8 steps, Turtle 12-15 steps, Turtle 26- 29 steps, Left path of split Turtle 45-51 steps.  Obstructions: Pillar 2-3 steps, Pillar 34-35 steps, Left path of split Pillar 52-53. |
| **The Great Gate** |
| X 26  Level is 2d level goes right at beginning it's a gate with various platforms and 4 types of enemies going up. |
| Falls: 11-12 steps, 22-23 steps, 29-30steps, 36-37 steps, 43-44 steps, 53-54 steps, 53-52 steps, 47-46 steps, 44-43 steps, 37 -36 steps, 14 fall, 8-7 steps, 3-2 steps, -3- -4 steps, -6- -7 steps, -13- -14 steps, -20 steps, -26- -27 steps, 39- -40 steps, -52- -53 steps -56- -55 steps, -62- -60 fall, -54- -54 steps, -46- -45 steps, -42- -40 steps, -31- -30 steps, -25- -24 steps, -22- -21 steps, -15- -14 steps, -12- -11 steps, 2-4 steps, 6-7 steps, 9-10 steps 12-14 steps, 19-20 steps, 22-23 steps, 26-27 steps, 29-30 steps, 35-36 steps, 43-45 steps, 50-51 steps, 54-53 steps, 56-57 steps.  Enemies: 8-9 steps turtle, 11- 12 steps turtle, 14-15 steps, 31-35 steps monkey, 39-40 steps turtle, 41 steps venus fly trap, 45-40 steps monkey, 35 steps venus fly trap, 12-9 steps tribesman with shield, -19- -15 steps monkey, -22- -25 steps tribesman with shield. -45- -46 steps turtle, -59- -55 steps monkey, -49 steps venus fly trap, -34 steps venus fly trap, -29- 26 steps tribesman with shield, -23 steps venus fly trap, -10- -29 tribesman with shield,-3- 1 steps monkey, 46-49 steps tribesman with shield  Obstructions: 3 steps box crate up 10, 1sst level ends at 60 steps right, 61-63 platform high jump up, 58 steps spins platform 2 up from first platform, platform 56-55 steps 3 up from base. Box creates up, 2nd level 58-54 steps platform up 13 from 1st level, checkpoint.  Section 2  56 steps, 29-30 steps spike up, 25 steps spike down, 21-22 steps spike up,  6-5 steps slippery slope down, 1- -2 steps slope down, -8- -11 slope down, -28- -29 steps slope up, 30- -31 steps up spike, -33 steps fire spout, -36 down spike, -38 down spike, -42 checkpoint.  Section 3  -44 down spike, - 47 down spike, -48-49 up spike, -54 steps first teleporter, -52+-53-+-54 steps Yellow gems medium jumps up, -55+-56 yellow gems medium jump down. -67 steps end of 2nd level platform, -68- -70 steps platform high jump up, -66 steps spin platform 2 up from 2nd level, -63- -64 steps platform 3 up -66 steps spin platform 4 up, -66 steps 13 up platform 3rd level. - 61 steps spike up, -44- -43 steps slippery slope down, -41 steps spike up, -39- -38 steps slope up, -37 steps up spike, -36- -33 slope up, -13 steps fire spout medium jump up -6- -4 steps 2 up spikes, 5 steps fire spout, 8 steps fire spout, 15-16 steps slope down, 17-18 steps slippery slope down medium jump up, 21 steps fire spout, 24-25 steps slope up, 31-34 steps slope down, 37-38 steps up slope, 39-40 steps up spike, 41-42 steps slope up, 53 steps fire spout, 62 steps end of 3rd level platform, 63-64 steps platform high jump, 61 steps spin platforms 2 up,4 up + 6 up, 58-59 steps platform high jump up 3 up, 63-64 steps platform high jump 5 up, 61 steps 18/19 up 2nd teleporter. |
| **Boulders** |
| x 16  3d level that the player must run through to avoid boulder chasing him it's mostly linear with a few twists in the path and obstacles to stop Crash. |
| Falls: 24-25 steps,30-32 steps, 43-46 steps, 50-51 steps,59 -60 steps, 62-64 steps, Section 2 5-6 steps, 8-9 steps, 15-16 steps, 18-19 steps, 22-23 steps, 24-25 steps, 54-55steps, 57-58 steps, 60-61 steps, 64-65- steps, 67-68 steps, 70-71 steps, 73-74 steps  Enemies: None.  Obstructions: 5-8 steps first boulder entrance 3 steps wide, 32 steps 1st boulder stops, 33-36 steps 2nd boulder entrance, 67-70 steps tunnel, 72 + 76 + 80 + 82 + 84 steps 5 fences 85 2nd boulder stops, 86-89 3rd boulder entrance, 89 checkpoint, section 2 7 steps pillar, 17 steps pillar, 24 steps pillar, 28-30 steps small tunnel, 31 right fence, 35 steps middle fence, 40 steps middle fence, 42 left fence, 48-52 steps tunnel 56 steps platform, 59 steps platform, 66 steps platform, 69 steps platform, 72 steps platform, 76 steps right teleporter, 77 steps level end. |
| **Upstream** |
| x 14  River level 3d but moves up linear y axis. |
| Falls: 5-6 steps,8-9 steps, 11-12 steps, 14-15 steps, 17-18 steps, 20-21 steps, 30-31 steps, 33-34 steps, 36-37 steps, 39 -40 steps, 65-66 steps, 67-68 steps, 73-74 steps, 78-79 steps, 83-83 steps, 86-87 steps, 89-90 steps, 91-92 steps, 94-95 steps, 97-98 steps, 100-101 steps, 103-104 steps, 116-117 steps, 119 -120 steps, 122-123 steps, 127-128 steps, 130-131 steps, 135 steps, 137-138 steps, 140-141 steps, 148-149 steps, 154 steps, 156-157 steps, 159-160 steps, 162-163 steps, 165-166 steps, 168-169 steps, 173-174 steps, 176-177 steps,179-180 steps.  Enemies:14-15 steps flying fish, 42-43 steps flying fish, 46-47 steps flying fish, 146-147 steps flying fish, 59 -60 steps flying fish, 66 steps venus fly trap green, 70-71 steps flying fish, 93 steps venus fly trap green, 97-98 steps flying fish, 99 steps venus fly trap black, 118 steps venus fly trap black, 121 steps venus fly trap green, 136 steps venus fly trap black, 154 steps flying fish, 155 steps venus fly trap black, 167 steps venus fly trap black, 178 steps venus fly trap,  Obstructions: 1-4 steps log, 7 steps dirt platform, 10 steps lily pad, 19 steps pillar, 22-24 steps moving leaf, 25-29 steps log, 32 steps lily pad, 35 steps lily pad, 38 steps rock 2 wide middle, 41 steps lily pad, 44-48 steps stone pillar, 49-57 steps log slope up, 58 steps checkpoint/rock platform 2 wide,  Section 2 61-63 steps moving leaf, 64 steps rock 2 wide, 69-72 steps stone pillar, 75-77 steps moving leaf, 80 -82 steps moving leaf, 85 steps lily pad, 88 steps lily pad, steps lily pad, 96 steps rock 2 wide, 102 steps pillar, 105-113 steps log slope up 106+109+112 steps left of log orange gem, 112 steps 5 gems 2 left and right of log and 1 under, 114 steps rock 2 wide, 115 steps checkpoint  Section 3 124 steps checkpoint/rock platform 2 wide,  Section 4 124-126 steps moving leaf, 129 steps lily pad, 132 steps dirt platform, 132-134 steps moving leaf to right, 139 steps lily pad, 142 steps stone pillar, 145 steps 1st teleporter, 142-144 steps orange gem to right, 145- 147 steps orange gem to right, 149-151 moving leaf, 1551-153 moving leaf to the left,169 steps lily pad, 172 rock platform 2 wide, 161 steps lily pad, 164 steps rock pillar 2 wide, 170-172 steps moving leaf, 175 steps lily pad, 181 teleporter, 182 end level with waterfall. |
| **Papu Papu** |
| First boss of the game based in a circular hut where Crash can stand on Papu Papus chair to avoid his circular move attack. |
| **Hog Wild** |
| X 24  Crash boards a wild hog for some reason and rides through a 3d level that moves up the y-axis surrounded by huts with spikes, tribesmen, spinning hogs and falls trying to stop him form reaching the teleporter. |
| Falls: 7-9 steps, 14-16 steps, 22-26 steps, 76-79 steps, 98-101 steps, 106-109 steps, 117-130 steps.  Enemies: 83 steps moving tribesman, 91 steps moving tribesman, 103 steps moving tribesman, 126 steps moving tribesman, 129 steps moving tribesman, 146 steps moving tribesman, 185 steps moving tribesman.  Obstructions: 27-29 steps slope up, 30-33 steps hut, 42 steps side spike, 48 steps side spike, 52 standing side spike right, 54 steps standing spike middle, 56 steps standing spike left, 58 steps standing spike, 58-61 steps slope up, 60 steps standing spike right, 62 steps standing spike left, 66-69 steps logs up, 70-73 steps hut, 71 steps checkpoint,  86 steps standing spike right, 88 steps standing spike left, 89 steps standing spike left, 95-96 steps gate, 97 steps drum, 102-104 steps slope up, 105 steps drum, 114 steps side spike, 116-117 steps logs up, 117-120 hut, 118 steps checkpoint, 123 steps standing spike left, 125 steps standing spike left, 142 steps standing spike, 144 steps standing spike right, 145-146 steps gate, 150-151 steps spinning hog, 151-154 steps slope up, 155 steps standing spike left, 157 steps standing spike right, 160-161 steps spinning hog, 162-164 steps slope up, 165 steps standing spike right, 167 standing spike right steps, 172-174 steps gate, 173-174 steps spinning hog, 178-179 steps side spike, 187-189 slope up, 190 teleporter. |
| Island 2 |
| **Ripper Roo** |
| Boss level shaped like Ripper Roo's face, 9 platforms to jump on with water in between with Big TNT floating down the water fall to hurt Ripper Roo with. |
| **The Lost City** |
| X 25  2d level based on Aztec ruins where Crash goes right on the bottom level and left on the top level. |
| Falls: 10-11 steps, 14-15 steps,32-33 steps, 37-38 steps, 40-41 steps, 65-66 steps, 73 steps, 75-76 steps, 78-79 steps, 86 steps, 88 steps, 99-101 fall, 126-127 steps, 131-132 steps, 122-121 steps, 119-118 steps, 116-115 steps,112-111 steps, 106-107 steps, 67-68 steps, 64-63 steps, 57-56 steps, 53-52 steps 48-47 steps,45-44 steps, 40 steps, 35-34 steps, 25-24 steps, 21-20 steps, 10-9 steps. -4- -5 steps, -8- -10 steps, -14- -15 steps.  Enemies: 23-25 steps lizard, 43 steps bat, 53 steps bat, 82 steps bat, 95 steps bat, 111 steps bat, 117-119 steps lizard, 124 steps bat, 135-137 green lizard, 139-145 steps red lizard,  117-125 steps red lizard, 111 steps bat, 95 steps bat, 62-60-58 green steps lizard, 49 steps bat, 46 steps lizard, 42-41 steps lizard, 39 steps bat, 6-3-1 steps green lizard, -7- -9- -11 steps green lizard.  Obstructions: 4 steps small mouth cave small jump up 3 deep, 12-13 steps pillar, 19-20 steps in out pillar, 22-25 steps high jump down and up, 23-24 steps cave high jump 4 wide 2 deep, 27-28 steps in out pillar, 34-36 pillar, 39 steps floating pillar, 46- 49 steps high jump down, 47-48 steps cave 4 wide 2 length,49 steps pillar high jump down, 50-52 steps down pillar, 54 steps mouth cave 3 deep, 57-58+59-60 steps push pillars,62 steps checkpoint,  Section 2 67 steps stump high jump down, 70-72 steps pillar, 74 steps floating pillar, 77 steps floating pillar, 83-85 steps high jump down, 87 pillar, 92 high jump up, 98 steps platform, 96- 100 steps circling platforms, 98 steps platform, 104-105+106-107+108-109 in out pillars, 110-111 steps high jump down, 112-114 steps platform high jump up, 115-116 steps high jump down, 117 steps mouth cave 3 deep, 120-121 steps high jump down, 122 high jump up, 129 checkpoint.  Section 3 137-138+139-140+141-142+143-144 steps in out platforms, 150 steps end platform, 150-151 steps high jump platform, 148 in out platforms 2 up, 4 up, 6 up, 144-146 steps platform 3 up, 149-150 steps platform 5 up, 150-151 steps platform 7 up,146-149 steps spinning platforms 8-10 up, 148 steps platform/checkpoint.  Section 4 150-151 steps platform 11 up, 146-149 steps spinning platforms 12 -12 up, 147 steps platform 15 up, 149 steps in out platform 16 up, 147 steps in out platform 17 up, 149 steps in out platform 18 up, 147 steps in out platform19 up, 149 steps in out platform 20 up, 147 steps in out platform 21 up, 149 steps in out platforms, 147 steps high jump platform to top of level, 146 steps small jump platform up, 140-142 steps building entrance 2 length, 143-146 steps path to building 1 length, 147-150 steps building, 137- 129 steps pressure platform, 120 steps pillar, 117 steps pillar, 108-109 pillar high down,104-105 pillar high jump up,103-102+101-100+99-97+96-95 steps in out pillars, 92 steps checkpoint  Section 5 89-88+87-86+83-82+81-80 steps in out pillars 77-76 steps high jump down, 75 steps high jump up, 75-74+73-72 steps in out pillar, 66-65 steps pillar high jump down to next platform, 55-54 steps pillar high jump up, 46 steps platform high jump down, 41-43 steps platform, 39 steps high jump up, 37 steps checkpoint  Section 6 34-26 steps pressure platforms, 23-22 steps pillar, 19-11 steps pressure platforms, 5-4+0-1 steps in out pillars, -7-8 steps platform in back 2 wide and 2 length, -12- -11 steps platform in back 2 wide and 2 length, -16 steps pillar/teleporter small jump up. |
| **Temple Ruins** |
| x 67 |
|  |
| **Road to Nowhere** |
| x 33 |
|  |
| **Koala Kong** |
|  |
| Island 3 |
| **Heavy Machinery** |
| x 33 |
|  |
| **Cortex Power** |
| x 41 |
|  |
| **Toxic Waste** |
|  |
|  |
| **Pinstripe Potoroo** |
|  |
| **Slippery Climb** |
| x 31 |
|  |
| **Lights Out** |
| x 15 |
|  |
| **Dr. Nitrus Brio** |
|  |
| **The Lab** |
| x 21 |
|  |
| **The Great Hall** |
|  |
| **Dr. Neo Cortex** |
| This is the final level in the game this biss is based around the final section of the 3rd island where Cortex's blimp rotates around his destroyed and burning castle. |

**Main Menu**

The main menu for the game will be a simple 2D menu but will have 3D objects for the animation. The animation will have Crash running towards the screen and ducking when the title “Willy the Wombat” goes across the top of the screen. There will be sound effects for when the letters come in and the theme song will play on till you select start which will bring you the start of the level. The menu will have “Start, Load Game, Options. To select one from the menu you will just move your cursor over one and select it. The menu script will be responsible for its animator by setting a boolean inside of it to indicate if the menu is open and the canvasgroup will make the elements in the children none click-able.



Hopefully in the end it will look something like this or at least as close to it as possible.

**Objects**

**Collectables:**

Wumpa Fruit; Found all over the game, these fruits are satisfying to pick up, and getting 100 of them will grant you an extra life! Wumpa fruit are scattered away from Crash when they are spin-attacked, whereupon they are lost forever. Be careful!

Gems; Collectables gotten by completing a level without losing a life and breaking every single crate. Getting all of them gets you bragging rights, with six of them having special colours which unlock corresponding special platforms.

Keys; Collectables gotten by beating Cortex Bonus Stages. There are two total, and they grant access to Secret Stages. Whether the Keys, and by extension the secret Levels, will be included in Willie The Wombat remains to be seen.

**Crates:**

Crates are found everywhere in Crash Bandicoot. They serve as platforms, obstacles, hazards and stress relievers (When you plow through them with spin-attacks to get at that sweet-sweet Wumpa Fruit). Unless specified otherwise, all crates can be broken by jumping on them and with spin attacks.

Regular Crates; Made of wood. Shaped like a cube. May contain wumpa fruit within.

Crash Crates; Like a regular crate, but has Crash's grinning face on the side. Contains an extra life.

? Crates; Like a regular crate, but has an enigmatic “?” On the side. May contain large amounts of wumpa fruit, or perhaps an extra life!

Aku Aku Crates; Like a regular crate, but has a picture of Aku Aku on the side. Grants crash an Aku Aku mask, which allows him to take an extra hit. Getting two gives him two hits. Three makes him invincible and increases his speed, but after a while it drops back down to giving an extra two hits.

Checkpoint Crate; Like a regular crate, but has a “C” written on the side. Touching it triggers a checkpoint, allowing Crash to restart the level from there if he dies.

Bounce Crate; Like a regular crate, except it is made of thinner wood panelling. Bounces Crash up into the air when he jumps on it, granting a wumpa fruit each bounce. On the tenth bounce it breaks. Also gives fruit when jumped at from underneath. Only gives one if spin-attacked.

Iron Crates; Like a regular crate, except made of metal. Unbreakable.

Arrow Crates: Like a regular crate, but has an arrow pointing upwards on its side. Jumping on it causes crash to jump extra high. Can be made of Iron, too!

! Crates; Like an iron crate, but has a mysterious “!” on the side. Spin attacking it causes Outline Crates to become regular crates.

Outline Crates; Like a regular crate, except it's only a white outline! Crash cannot interact with them and will pass straight through. Hit a ! Crate to turn them into regular crates.

TNT Crates; Like a regular crate, but red, and has the letters “TNT” written on the side in yellow. Touching it or jumping on it starts a countdown, the number 3 replacing TNT, which counts down to 1, then explodes. Explodes immediately if spin-attacked. The explosion damages Crash.

Nitro Crates; Like a TNT Crate, but green, and has “Nitro” written on the side. Explodes on contact. The explosion damages Crash.

**Miscellaneous Traps/Obstacles:**

These are Items in the game that Crash can interact with, but are not simple platforms. Most of them are hazards of one kind or another, which hurt Crash when he comes into contact with them. These include:

Ground spikes, Swinging pendulums, Bottomless Pitfalls(which result in instant death regardless of Aku Aku masks), Torches, and various other objects that Crash can fatally mutilate himself with. They all behave in simple manners, in most cases not moving at all, and many are copies of the others.

There are some entries in the Enemies section which one may argue actually fall under this heading, such as the Rolling Stone, or the Boulder. Their behaviour is a bit more complex than the traps listed above, and thus require having their patterns elaborated on, which is what the Enemy section is for.

**Enemies**

Several enemies appear in the first Crash Bandicoot. They are listed below, by name, followed by a description of their movements and/or patterns. Note that, unless specified otherwise, all enemies can be defeated by jumping on them or with the spin attack.

- **Crab**; Appear in N Sanity Beach. Patrols Left to right across paths. Damages Crash on contact. This enemy does not pursue the player.

- **Turtle**; First appear in N Sanity Beach. Patrols forward and back along paths. Damages Crash on contact. This enemy does not pursue the player.

- **Rolling Stones**; First appear in Jungle Rollers. Roll left to right along a stone ramp. Damages Crash upon rolling over him. This enemy does not pursue the player.

- **Skunks**; First appear in Jungle Rollers. Marches forward along paths. Damages Crash on contact. This enemy does not pursue the player.

- **Venus Fly Traps**; First appear in Jungle Rollers. Stationary. Damages Crash when he walks over them. Three types, one on land (standard behaviour), one water (standard behaviour), and another water(snaps shut every three seconds, regardless of player interaction). This enemy does not pursue the player.

- **Monkey**; First appear in The Great Gate. Roll one direction, causing damage. Pauses. Rolls the other direction, causing damage. Repeat. While rolling, repels spinning Crash in the opposite direction. Damages Crash on contact. This enemy does not pursue the player.

- **Shield Tribesman**; First appear in The Great Gate. Hold shields. Immune to spin attack while shield in front. Immune to jump while shield on head. Damages Crash on contact. Patrol-type. This enemy reacts to the player's movements, raising and lowering the shield as required, but otherwise does not pursue the player.

- **Boulder**; Appears in Boulders. Rolls down the level at a constant rate. The player must run from it. Kills Crash on contact. This enemy is invincible. This enemy pursues the player, but does not track their movements.

- **Flying Fish**; First appear in Upstream. Leap up out of the water at an angle, before descending back in. Makes an arc shape, and thus fits the rotates about a fixed point movement type. Damages Crash on contact. This enemy does not pursue the player.

- **Bats**; First appear in Lost City. There are two bats on the ceiling, spread apart. More bats attack in swarms, flying between the two stationary bats. Once both stationary bats are defeated the swarm stops passing through. Damages Crash on contact. Cannot be damaged by jumping. This enemy does not pursue the player.

- **Lizard**; First appear in Lost City. Patrol-type enemy. Damages Crash on contact. This enemy does not pursue the player.

-**Lizardman**; First appear in Lost City. Move exclusively by jumping. Damages Crash on contact. This enemy does not pursue the player.

- **Cobra**; First appear in Temple Ruin. Behave like Venus Fly Traps, attack Crash as he walks close to them. Damages Crash upon attack. This enemy reacts to player movement, but does not pursue the player.

- **Spider**; First appear in Temple Ruin. Located on ceiling, descend as Crash approaches. Damages Crash on contact. This enemy reacts to player movements, but does not pursue the player.

- **Hog**; First appear in Road To Nowhere. Patrol-type (Crab). Damages Crash on contact. This enemy is invincible. This enemy does not pursue the player.

- **Robot**; First appear in Cortex Power. Patrol-type (Turtle). Damages Crash on contact. This enemy does not pursue the player.

- **Holo projector**; First appears in Heavy Machinery. Hover up and down between gaps. Damages Crash on contact. Can Rotate about a fixed point. Immune to jump.

- **Spiked Saucers**; First appear in Cortex Power. Stationary, or float up and down, or float side to side. Invincible. Damages Crash on contact.

- **Machine Gunner**; Appears in Cortex Power. Emerge from the ground when the room is entered. Fires two guns at Crash. Stops to laugh. This enemy tracks the player's movement, but does not pursue the player.

- **Barrel Thrower**; Appears in Cortex Power. Throw barrels in Crash's path, but do not specifically aim at him. Thrown barrels can be of bounce-type or roll-type. This enemy does not pursue the player.

- **Bird**; First appears in Slippery Climb. Either flies straight up and down or hovers in place. Damages Crash on contact. This enemy does not pursue the player.

- **Evil hand**; Appears in Slippery Climb. This enemy is stationary. Damages Crash on contact. This enemy does not pursue the player.

- **Beaker Lab Assistant**; First appear in Slippery Climb. Throws beakers at Crash, which damage him. This enemy does not pursue the player.

- **Electricty Lab Assistant**; First appears in Lab. Creates an electric barrier in front of himself at regular intervals and approaches Crash with it. While it is active it will damage spin attacking Crash. This enemy is invincible, but can be knocked back with a spin attack when the barrier is lowered and thus can be defeated by knocking him off a ledge. This enemy pursues the player, but cannot jump.

- **Rats**; First appear in Lights Out. Behave like Skunks. Will continue marching forward until they fall into a pit. Damages Crash on contact. This enemy does not pursue the player.

- **Blob**; First appear in The Lab. Moves towards Crash by jumping at him. This enemy cannot be killed with spin-attacks. This enemy pursues the player while they are within range.

**Bosses**

Throughout the original Crash Bandicoot, the player had to confront Boss enemies, which were generally challenging one-on-one fights that were their own level. Each boss level is named after the boss. They each took more than one hit to kill, with each hit being represented as a Hit Point. All bosses have three or more hitpoints.

- **Papu Papu**; First Boss, appears in the 6th Level. 3 Hit Points.

Location: Papu Papu's hut. Small, circular. Has his throne at the end furthest from the camera.

Pattern: Walks towards the centre of the room, slams his staff down in an overhead swing. After this animation he is vulnerable to attack. He then swings his staff around in a circle, which, due to the size of the room, can only be dodged by jumping. He can be damaged by jumping on his head from behind. When damaged, he staggers for a second, then resumes the spin attack. Upon the third hit he collapses. Crash wins. Coming into contact with the swinging staff damages Crash.

- **Ripper Roo**; Second Boss, appears in the 11th level. 3 Hit Points.

Location: Waterfall. 3X3 rows of platforms on the river for Crash and Ripper Roo to jump around on.

Pattern: Bounces between the middle, lower-left, and lower-right platforms. TNT Crates begin falling down the waterfall, between the platforms. The player must make the TNT explode near Ripper Roo, damaging him. He will then laugh and begin bouncing around the right, middle, left, and bottom platforms. TNT once again must be used to damage him. He will then begin bouncing around the top, right, bottom, and left platforms. Hit him with TNT once again and Ripper Roo will collapse on the bottom tile. Crash wins. Invincible against jumping and spin attacks. Damages Crash on contact.

- **Koala Kong**; Third Boss, appears in the 17th level. 4 Hit Points.

Location: Volcanic Mine. Lava moat separates the player from Koala Kong. Mine carts on Koala Kongs' side consistently drive past, blocking him occasionally.

Pattern: Jumps to the left, starts throwing rocks at Crash. The fourth rock is carried very slowly forward before being thrown. This rock lands in front of crash if dodged and can be spin-attacked to send it back at Koala Kong, damaging him. As Koala Kong loses health, TNT starts dropping from the ceiling and mine carts drive by more frequently. Once Koala has been hit with the rock four times he will collapse. Crash wins. Out of range of conventional attacks. Damages Crash with projectiles.

- **Pinstripe Potoroo**; Fourth Boss, appears in the 22nd level. 6 Hit Points.

Location: Pinstripe's office. Small, cuboid. His desk is toppled over, and is in the centre of the room, facing towards the camera. In the corners close to the camera there are two arm chairs, which Crash can duck behind to avoid damage.

Pattern: From the top of his toppled desk, he leaps to the left side of the room and begins spraying bullets in front of him, angled so as to hit a wide area. He then hops over to the right hand side of the room, shooting the occasional bullet. Once he reaches the other side He will do the same spread-shot. He will then hop back over to the left, and perform the spread shot. He then hops to the right, but this time jumps on top of his desk to spray bullets. He jumps back to the left, does one more bullet spray, then halts to reload. Pinstripe is vulnerable to attack whilst moving from left to right and right to left, assuming the player attacks him early, and when reloading. The player can avoid damage by having Crash crouch behind the convenient arm-chairs. Once he has been hit six times, Pinstripe collapses. Crash wins. Damages Crash with projectiles.

- **Dr. Nitrus Brio**; Fifth Boss, appears in the 28th level. 9 Hit Points.

Location: N. Brio's Lab. Square. His work station is at the far end. Otherwise clear of obstacles and cover.

Pattern: Begins mixing liquids. If he is approached by the player he smashes the two beakers together, creating an explosion which damages Crash. After he mixes uninterrupted for a few seconds he throws a green potion at Crash. Creates a blob when it smashes. Blobs are immune to spinning, and must be jumped on. Jumping on them damages N. Brio. N. Brio then throws a red potion, which explodes on contact. He then throws two green potions, creating two more Blobs. Killing both rewards another two points of damage on N. Brio. He then throws three red and three green. Jumping on the resulting blobs deals 3 total points of damage. N. Brio now has three Hit Points remaining. He will throw six red potions, then drink an additional red potion. He transforms into a monster form, and pounds the ground, causing rocks to fall from the ceiling. Using these rocks to gain the necessary height, the player can jump on N. Brio's head, damaging him. Do this three times and N. Brio collapses. Crash wins. Blobs, Red Potions, falling rocks, and N. Brio's monster form all damage Crash.

- **Dr. Neo Cortex;** 6th and final Boss, appears in the 31st level. 5 Hit Points.

Location: The Top of Cortex's Air Ship. No obstacles. Cortex flies around on open air the background while Crash remains standing on the airship in the foreground.

Pattern: Shoots at Crash with his blaster. Pink has a homing effect. Blue goes up, and across the top, or down, and across the bottom. Green is like pink, but can be spin-attacked to send it back at Cortex. Cortex cannot be jumped on or attacked directly. The number of greens needed to be sent back increases by one every hit point until it reaches three, then the number decreases, with the fourth Hit Point needing two and the last Hit Point needing only one again.

To begin with, he shoots two pinks and one green. If the green is sent back, it will damage him, removing 1 Hit Point. Following this he will fire in the following order: pink, blue, pink, 2 blues, 2 greens. Hitting the two greens will take 1 hit point from Cortex. Next he will fire Pink, 2 Blues, Pink, Green, Pink, 2 Blues, 2 Greens. Hitting all the Greens will take another hit point. Next he shoots a row of five pinks, then 1 Green. He does this until you hit two greens back at him, taking another Hit Point. Lastly he will fire a single Green. Hit it back, and Cortex's last hit point is taken. Crash wins. Damages Crash with projectiles.

Our goal is to recreate all of these enemies and bosses for Willie The Wombat.

**Other things to code**

Save System: A save system will be added which will keep track of how many levels are completed in the game. The system will place the file within the game project.