# Treasure Hunt
based on concept of
Finite State Automata

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# Game Story

It all began 1119 years ago, Jake Parrot hid his loot mostly gold at some place before getting arrested. As the treasure was not recovered rumours spread and people claimed to have seen Jake digging at multiple locations around the globe. Many young pirates vistied Jakes's wife to ask if she knows about the treasure location and she told them all she knew. Start at the Antartica he told to her before he was caught. She dispised his ways and said the money was cursed and all in pursuit have failed and have not returned. Do you wish to find the burried treasure? Is the adventure worth risking your life??

# What is Finite State Automata?

A **finite-state machine** (FSM) or **finite-state automaton** (FSA, plural: **automata**), or simply a **state machine**, is a mathematical model of computation used to design both computer programs and sequential logic circuits. It is conceived as an abstract **machine** that can be in one of a **finite** number of states.

(Source for above: Wikipedia)

# An example to illustrate the same
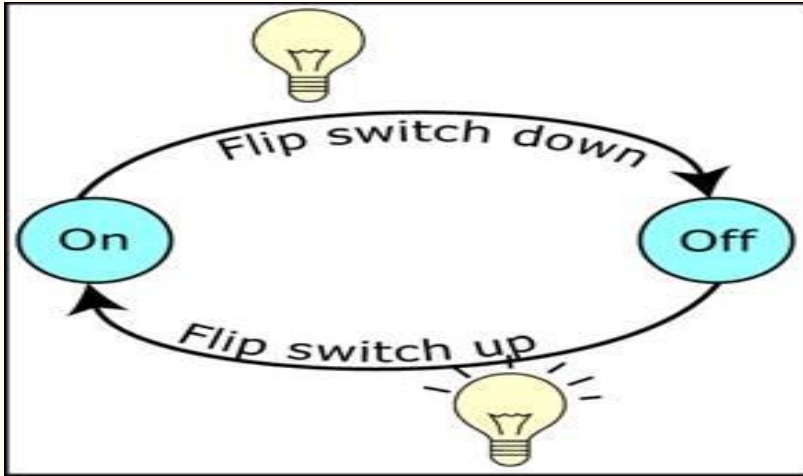


| In this example : there are **two states** for a switch: ***On and Off*** |
| --- |
| When **switch flips down: transition from on to off** |
| When **switch flips up: transition from off to on** |

# The game .. Treasure hunt..

❏ The game aims to **find** out a **hidden treasure**.
❏ The player has to **cross seven levels** to reach the place where the hidden treasure is.
❏ **Crossing a level involves crossing hurdles** and giving **correct answers to the hints** that come up.
❏ Finally on reaching the **place where the treasure is hidden**, the player has to **cross the hurdles to grab the treasure**.
❏ **Hurdles** in the game involves **killing sharks and skeletons**.
❏ The game is a multiplayer game, the first player to grab the treasure is the winner.

# Rules of the game

➢ At **each level** there will be **four images** displayed to you, **one of which** will be the **correct answer** and your **gateway to next level.**

➢ First a ***Text hint*** will come up, for you to guess the correct answer. A correct guess leads you to next level. Else you lose a life, which are the ships displayed in the top right corner

➢ For wrong guess you will be given a second hint which will be in the form of an ***image***. A correct guess here leads you to next level. Else you lose a life.

➢ If you answer the second hint wrong, then a third hint which will be an ***audio*** clip will come. A correct guess here leads you to next level. Else you lose a life.

➢ Since there are ***total of five lives***, for crossing all the levels, use your lives carefully.
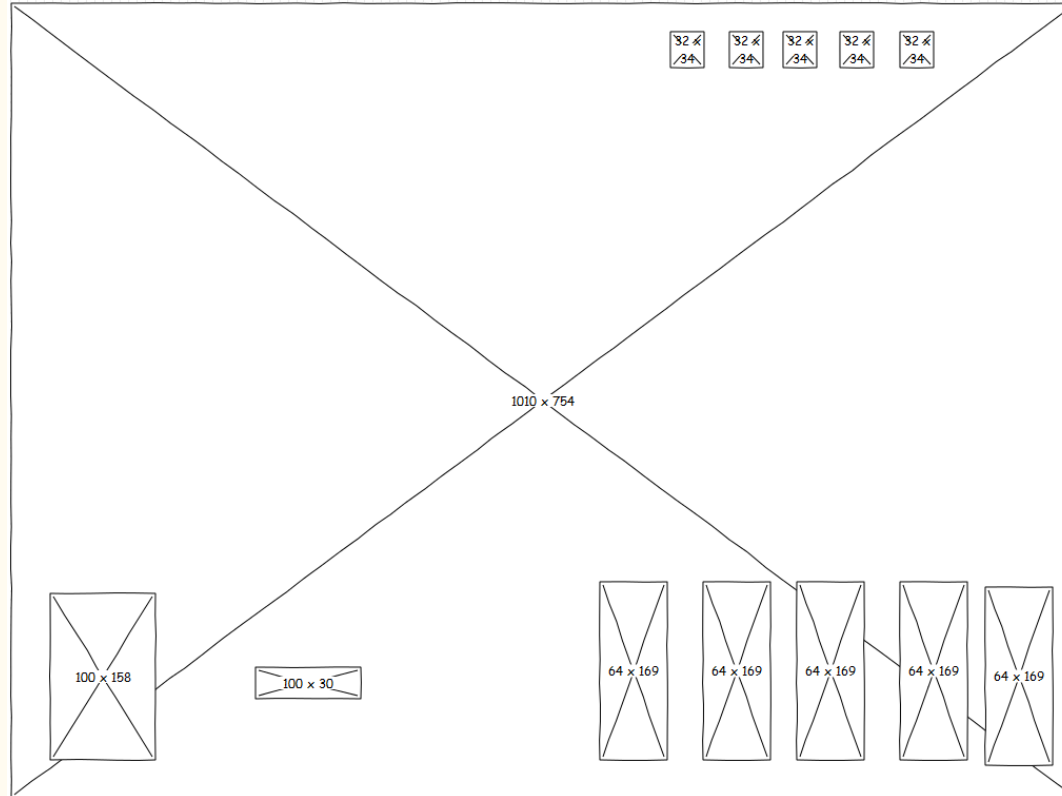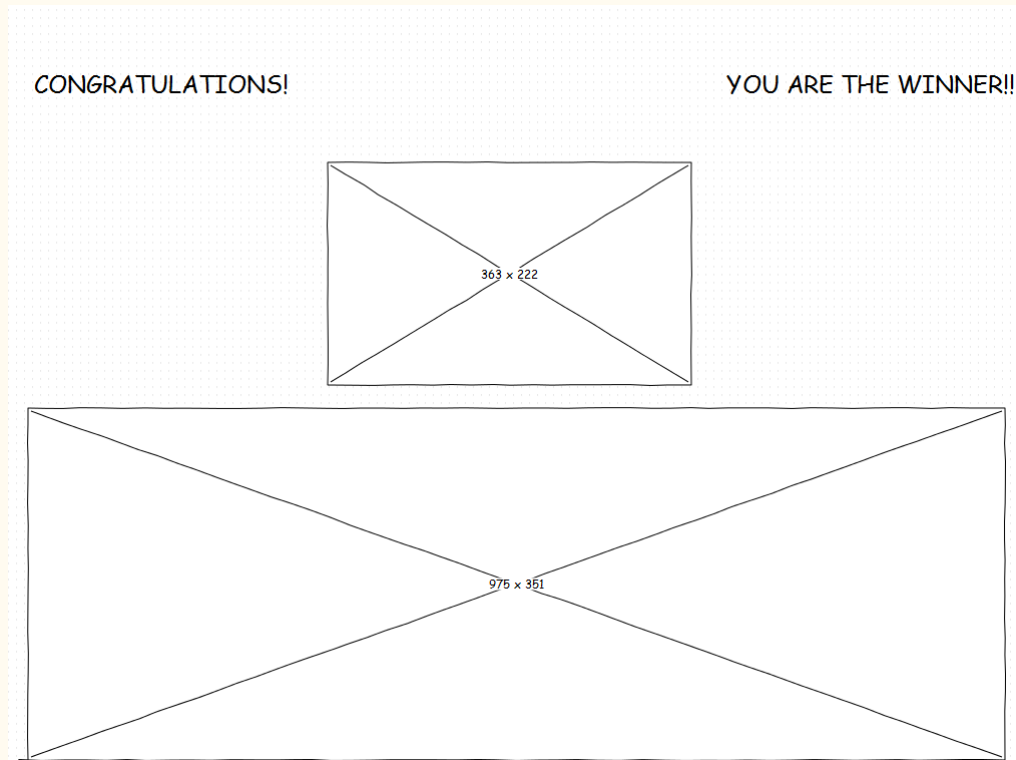
# UI Wireframes
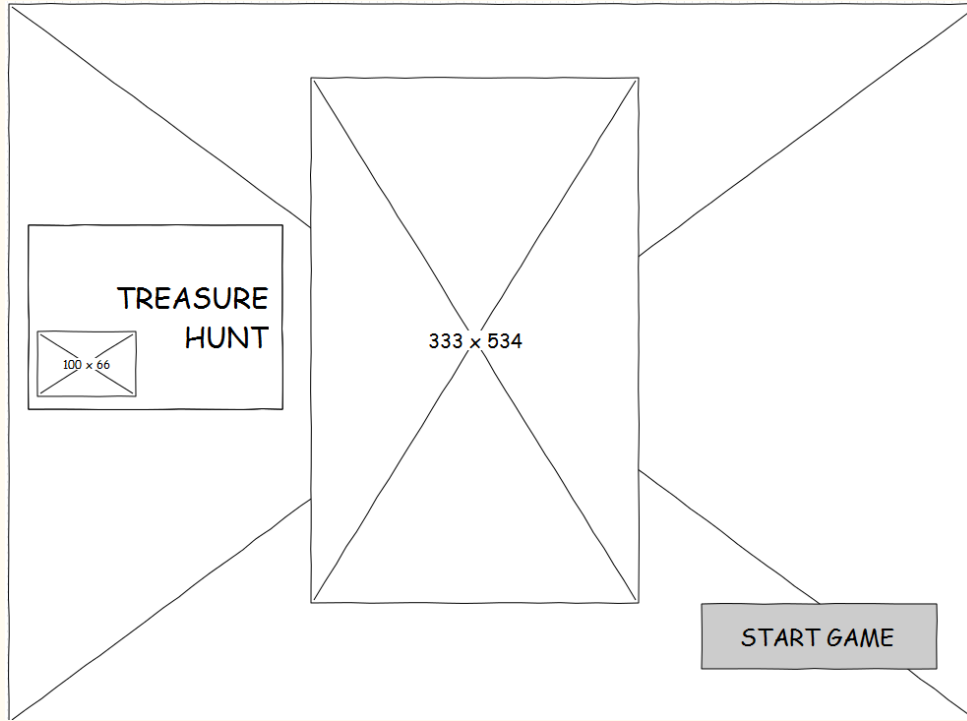
# UI Wireframes
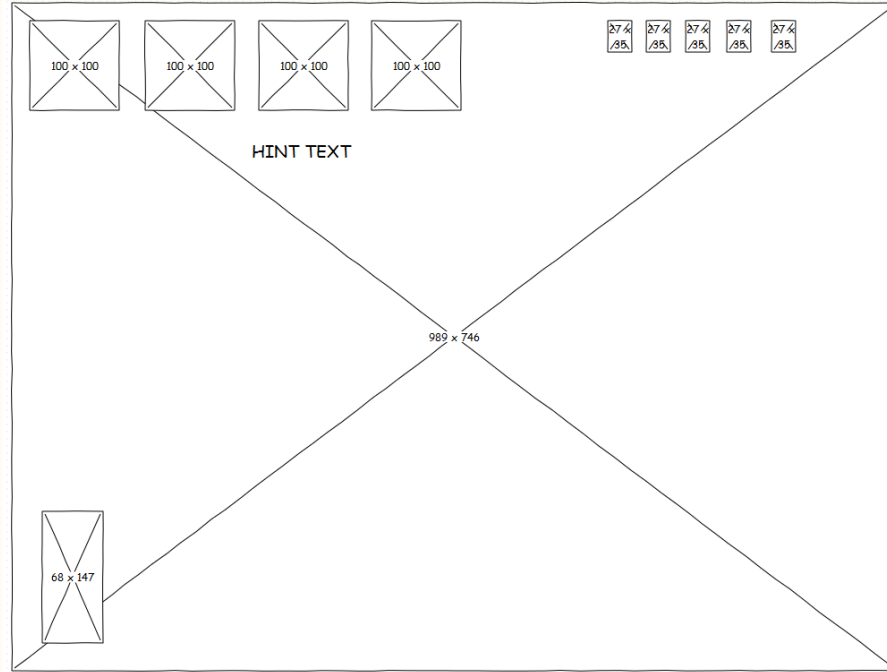
# UI Wireframes

# UI Wireframes

CONGRATULATIONS!                    YOU ARE THE WINNER!!

363 x 222

975 x 351

# User Story

**Story:** User plays the "Treasure Hunt" game

**In order** to win the treasure hunt game

**As a** Player

**I want to** play the game

**Scenario 1:** Player correctly answers hints to cross levels in the game

**Given:** that the game is set up

**And:** player is playing the game

**When:** player correctly answers the hints for every level in the game

**And:** grabs the treasure

**Then:** wins the game

# User Story

**Story:** User plays the "Treasure Hunt" game

**In order** to win the treasure hunt game

**As a** game application

**I want to** display screen

**Scenario 1:** Player correctly answers hints to cross levels in the game

**Given:**  that the game is set up

**And:** player is playing the game

**When:** player correctly answers the hints for every level in the game

**Then:** loads the next screen of the stage

# User Story

**Story:** User plays the "Treasure Hunt" game

**In order** to win the treasure hunt game

**As a** server

**I want to** add player, reject player, maintain stage of each player

**Scenario 1:** Player correctly answers hints to cross levels in the game

**Given:** that the game is set up

**And:** player is playing the game

**When:** player begins the game, answers the stage question correctly

**Then:** assigns new players and maintains the stage info for players respectively

# UML

Use case:

https://drive.google.com/file/d/0B1_o6M_ca_zlLU5tanJ2eTA3SEE/view

Use Case Description: Play Game

https://drive.google.com/file/d/0B1_o6M_ca_zldHNRTVNCNk5fWlU/view

Class Diagram:

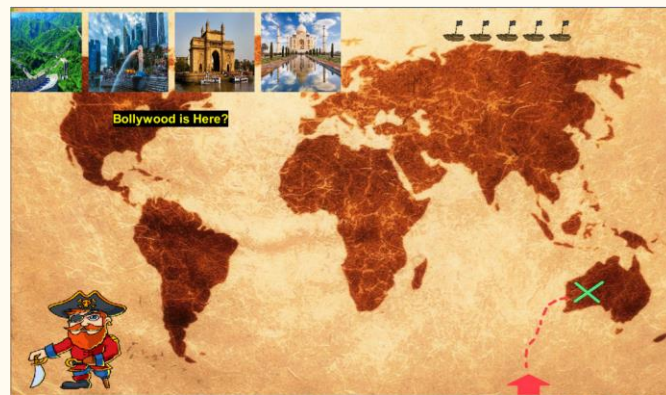https://drive.google.com/file/d/0B1_o6M_ca_zlbmtHNHVwUU8tZFU/view

Sequence Daigram:

https://drive.google.com/file/d/0B1_o6M_ca_zlRDZRd3ZnYTNpRkE/view

Activity Daigram:

https://drive.google.com/file/d/0B1_o6M_ca_zlcld4ajl2cUdMWWs/view

Game Walkthrough……

# Important Links

Sprint burntdown :

https://docs.google.com/spreadsheets/d/1pBg7BjI2Om-MmzSFEvno4B1U5fMI4zQ8l0AFtSaoFr8/edit#gid=0

Waffle :

https://waffle.io/amdh/202_Project1_Team16

# Thank You!