<u>MapMystery - Project Report</u>

3 1. Introduction:

MapMystery is a web-based geography game where players guess the location by observing Google Street View. The game challenges the player's knowledge of global landmarks and geography.

2. Project Structure:

/MapMystery ├──index.html (Start screen) ├──game.html (Game screen) ├──style.css (Styling for the game) └──script.js (Game logic)

3. Technologies Used:

- o HTML
- CSS
- JavaScript
- o Google Maps API

4. Game Flow:

- Start Screen:
 - Displays available locations and a "Start Game" button.
- o Game Screen:
 - Shows a Google Street View and provides buttons for location guesses.
- Result:
 - Checks the player's guess and displays whether it was correct or not.

5. Screenshots:

Start Screen:

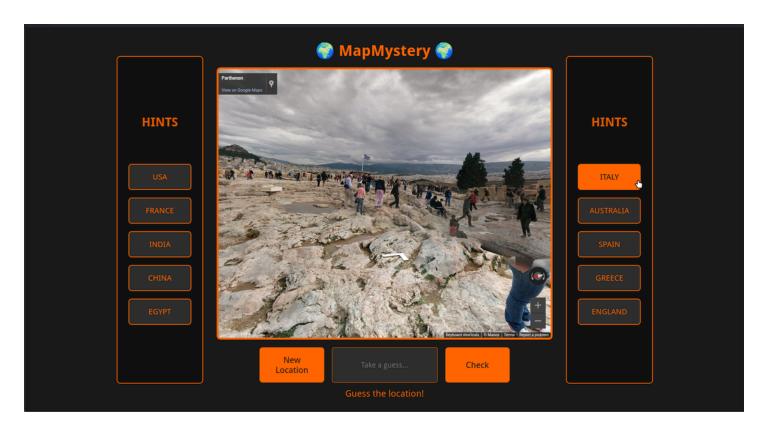


Game Screen:

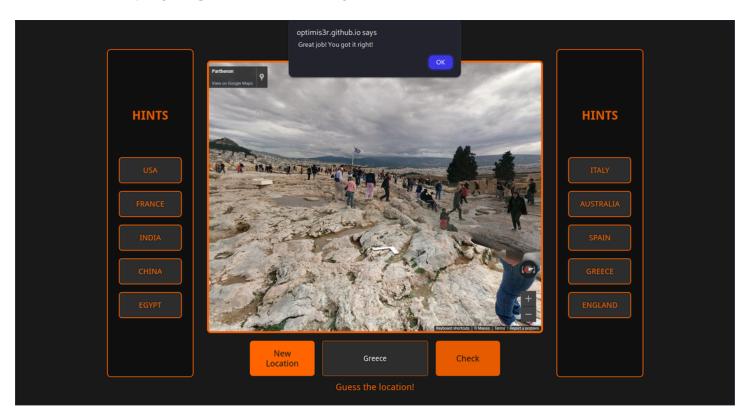
1. Screen (on load): Shows the game interface with a random location loaded in Street View.



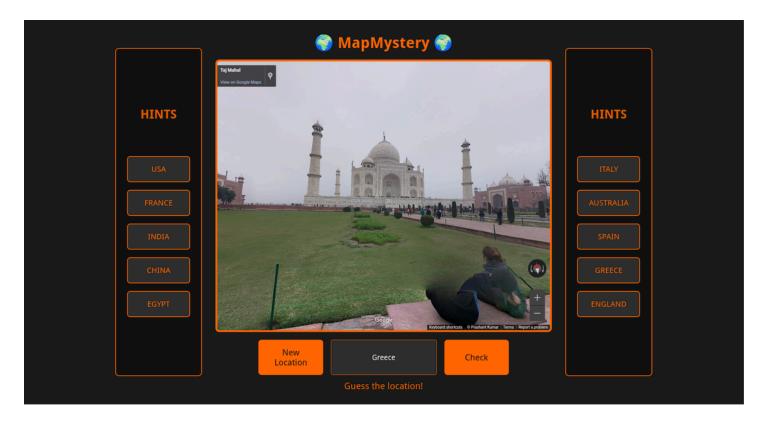
2. Screen (hover over the hints): Highlights the hint buttons when hovered, helping players get clues.



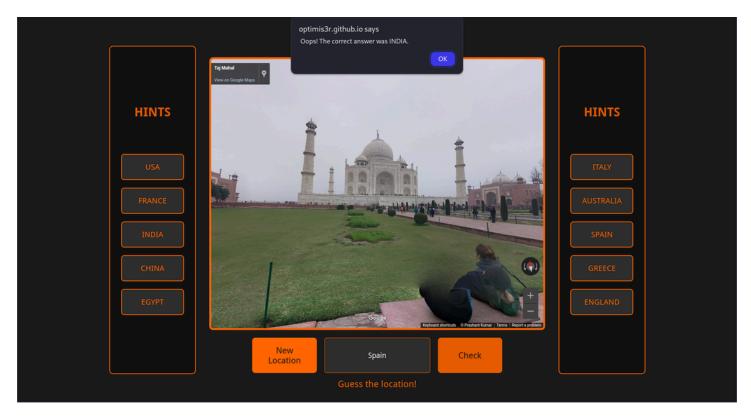
3. Screen (guessing correct answer - Greece): Displays a success message when the player guesses correctly.



4. Screen (on clicking New Location): Loads a new random location, resetting the guess input.



5. Screen (guessing incorrect answer): Shows an alert with the correct location when the player guesses wrong.



6. Codes:

1. index.html

<!DOCTYPE html> <html lang="en">

```
<head>
     <meta charset="UTF-8">
     <meta name="viewport" content="width=device-width, initial-scale=1.0">
     <title>MapMystery - Guide</title>
     <link rel="stylesheet" href="style.css">
   </head>
   <body class="guide-page">
     <div class="guide-container">
      <h1>  Welcome to MapMystery!   <h1>
   Guess the location by observing the map and entering your
      guess. Test your geography skills!
      <h2>Available Locations:</h2>
      <!--All the available locations-->
      ul class="location-list">
        USA
        I France
        = India
        China
        = Egypt
        Italy
        Martalia
        Spain
        Sireece
        + England
      <!--direct to game-->
      <button onclick="window.location.href='game.html'">Start Game</button>
     </div>
   </body>
   </html>
2. game.html
   <!DOCTYPE html>
   <html lang="en">
   <head>
     <meta charset="UTF-8">
```

<meta name="viewport" content="width=device-width, initial-scale=1.0">

<title>MapMystery - Guess the Location!</title>

k rel="stylesheet" href="style.css">

```
</head>
<body>
 <div class="game-container">
   <!--sidebar-->
   <div class="location-sidebar">
     HINTS
     <button>USA</putton>
     <button>FRANCE</button>
     <button>INDIA</button>
     <button>CHINA</button>
     <button>EGYPT</button>
   </div>
   <!-- Game -->
   <div class="game-content">
     <h1> MapMystery  < \chicklet < 1 > </h1>
     <div class="image-container">
       <iframe id="mapFrame" src="about:blank"></iframe>
     </div>
     <div class="controls">
       <button id="displayRandom" onclick="displayLocation()">New Location/button>
       <input class="user-choice" id="userChoice" type="text" placeholder="Take a</pre>
        guess...">
       <button id="checkAnswer" onclick="checkUser()">Check</button>
     </div>
     Guess the location!
   </div>
   <!-- sidebar -->
   <div class="location-sidebar">
     HINTS
     <button>ITALY
     <button>AUSTRALIA/button>
     <button>SPAIN</button>
     <button>GREECE</button>
     <button>ENGLAND</button>
   </div>
 </div>
 <script src="script.js"></script>
```

```
</body>
```

3. style.css

```
html, body {
  margin: 0;
  padding: 0;
  box-sizing: border-box;
  font-family: Arial, sans-serif;
  color: #f5f5f5;
  background: #1a1a1a;
  display: flex;
 justify-content: center;
  align-items: center;
  height: 100vh;
  width: 100%;
  overflow: hidden;
}
/* Intro Page */
.guide-container {
  display: flex;
  flex-direction: column;
  justify-content: center;
  align-items: center;
  height: 100vh;
  padding: 20px;
}
.guide-page .guide-container {
  text-align: center;
}
.guide-container button {
  padding: 15px 40px;
  margin-top: 20px;
  background: #ff6600;
  color: #1a1a1a;
  border: none;
  border-radius: 8px;
```

```
tont-size: 1.3rem;
  font-weight: bold;
  cursor: pointer;
  transition: background 0.2s ease;
}
.guide-container button:hover {
  background: #e65c00;
}
.location-list {
  list-style: none;
  padding: 0;
  margin: 20px 0;
  display: grid;
  grid-template-columns: repeat(auto-fit, minmax(120px, 1fr));
  gap: 10px;
  max-width: 600px;
}
.location-list li {
  background: #2d2d2d;
  padding: 12px;
  border: 1px solid #ff6600;
  border-radius: 5px;
  text-transform: uppercase;
  cursor: default;
}
/* Sidebars */
.location-sidebar {
  display: flex;
  flex-direction: column;
  align-items: center;
 justify-content: center;
  gap: 20px;
  width: 250px;
  height: 90%;
  padding: 20px;
  background: #131313;
```

```
border: 2px solid #ff6600;
  border-radius: 10px;
}
.location-sidebar p {
  color: #e65c00;
  font-size: 2rem;
  font-weight: bolder;
  margin: 0;
  margin-bottom: 70px;
  text-align: center;
  width: 100%;
  cursor: default;
}
.location-sidebar button {
  width: 90%;
  padding: 20px;
  background: #2d2d2d;
  border: 2px solid #ff6600;
  border-radius: 8px;
  color: #ff6600;
  font-size: 1.3rem;
  text-transform: uppercase;
  cursor: pointer;
 transition: background 0.2s;
}
.location-sidebar button:hover {
  background: #ff6600;
  color: #1a1a1a;
}
/* Game */
.game-container {
  display: flex;
  flex-direction: row;
  justify-content: center;
  align-items: center;
  width: 95%;
        . . . . . . . . .
```

```
max-width: 1400px;
  height: 90vh;
  gap: 40px;
}
.game-content {
  display: flex;
  flex-direction: column;
  align-items: center;
 justify-content: center;
  width: 85%;
  max-width: 900px;
}
.image-container {
  width: 100%;
  height: 70vh;
  border: 5px solid #ff6600;
  border-radius: 10px;
  overflow: hidden;
}
.controls {
  display: flex;
 justify-content: center;
  gap: 20px;
  margin-top: 20px;
}
.controls button {
  padding: 20px 40px;
  font-size: 1.4rem;
  background: #ff6600;
  width: 25%;
  color: #1a1a1a;
  border: none;
  border-radius: 8px;
  cursor: pointer;
 transition: background 0.2s ease;
}
```

```
.controls button:hover {
  background: #e65c00;
}
h1 {
  color: #ff6600;
  margin-bottom: 20px;
  font-size: 2.5rem;
 text-align: center;
}
iframe {
  width: 100%;
  height: 100%;
  border: none;
}
.user-choice {
  padding: 12px;
  border: 1px solid #ff6600;
  background: #2d2d2d;
  color: #f5f5f5;
  border-radius: 5px;
  font-size: 1.2rem;
  width: 250px;
 text-align: center;
}
#locationDisplay {
  margin-top: 15px;
  font-size: 1.5rem;
  color: #ff6600;
  text-align: center;
  cursor: default;
}
```

4. script.js

```
// Available locations let locations = {
```

&output=embed",

"usa": "https://www.google.com/maps/embed? pb=!4v1741588914108!6m8!1m7!1sCAoSLEFGMVFpcFBjOWZ6V2trSmN3cjVld3pjb1B1V05 SYkRWWVFvczlSQkZ2eVRU!2m2!1d40.68892551841514!2d-74.044597866788!3f321.0146464135345!4f10.605047391156447!5f0.7820865974627469

"france": "https://www.google.com/maps/embed? pb=!4v1741621235051!6m8!1m7!1si81tcbzXfvi0BA-PoOkxw!2m2!1d48.85894927283069!2d2.293408033354338!3f81.0603361625299!4f-13.65869531329409!5f0.45869288373407957&output=embed",

"india": "https://www.google.com/maps/embed? pb=!4v1741621360808!6m8!1m7!1sCAoSFONJSEOwb2dLRUlDQWdJQ0V0ZVRBNWdF!2m 2!1d27.17395398035674!2d78.04186246250939!3f29.513024327743757!4f7.295353658753 115!5f0.7820865974627469&output=embed",

"china": "https://www.google.com/maps/embed? pb=!4v1741621570873!6m8!1m7!1sCAoSLEFGMVFpcE03UlZBeHJVSWpLbFlKMTBmY293N Wszck1ocmtuTXgyUG9RQlRp!2m2!1d40.44279717590992!2d116.5638617730259!3f258.48 99626486108!4f-5.044432245495187!5f0.7820865974627469&output=embed",

"egypt": "https://www.google.com/maps/embed? pb=!4v1741621706252!6m8!1m7!1sCAoSLEFGMVFpcE9FU1dkNTVKNjZBUXpSSmJmUzk5a kZsOERhYkFmNnU4dFAxeUV2!2m2!1d29.97720944573853!2d31.13473007216287!3f240.1 6192043646478!4f-21.343971017328514!5f0.7820865974627469&output=embed",

"italy": "https://www.google.com/maps/embed? pb=!4v1742400890278!6m8!1m7!1sriOA94KRZ7H3mESWpynZrw!2m2!1d43.723022796313 28!2d10.39756748539553!3f276.5695816395664!4f6.607448251335683!5f0.78208659746 27469&output=embed",

"australia": "https://www.google.com/maps/embed?
pb=!4v1742401076032!6m8!1m7!1sCAoSLEFGMVFpcE1rc0MtZ0ctc1A5UzZsYWdRQUYyO
TREOGRrOFBrc1NMY1ZQbDFa!2m2!1d33.85517872151119!2d151.2156623865488!3f87.07062579379388!4f9.472164207166756!5f0.400000000000000002&output=embed",

"spain": "https://www.google.com/maps/embed?
pb=!4v1742401267929!6m8!1m7!1sPZHtUAXyoiOGZfcqxNxc0w!2m2!1d41.404087117312!2
d2.174993059416575!3f292.75696959475044!4f0.8848347258998501!5f0.7820865974627469&output=embed",

"greece": "https://www.google.com/maps/embed?
pb=!4v1742401535452!6m8!1m7!1sCAoSLEFGMVFpcE9BSlNwWDZGSkFxMVZxTnRsbm5q
MEU4VjVWN24xUTdsYTJ4dVNm!2m2!1d37.97176500506048!2d23.72710384436539!3f10
3.1823200370201!4f-5.195967656492186!5f0.517937765334858&output=embed",

```
"england": "https://www.google.com/maps/embed?
pb=!4v1742405287990!6m8!1m7!1sVBnrlmeoNKPv-
TFzV2uGkg!2m2!1d51.17891902587559!2d-
1.82625789743674!3f85.6846033067922!4f0.29636903873674214!5f0.782086597462746
9&output=embed"
}
};
let currentLocation = null;
// Select Random Location
function getRandomLocation() {
  const keys = Object.keys(locations);
  const randomKey = keys[Math.floor(Math.random() * keys.length)];
  return { key: randomKey, url: locations[randomKey] };
}
// Reset User's Input
function resetUserInput() {
  document.getElementById("userChoice").value = ""; // Clear the input field
}
// Display Location
function displayLocation() {
  currentLocation = getRandomLocation();
  document.getElementById("mapFrame").src = currentLocation.url;
  resetUserInput(); // Reset the input field when a new location is displayed
}
// Verify User's Answer
function checkUser() {
  const userInput = document.getElementById("userChoice").value.trim().toLowerCase();
alert(userInput === currentLocation.key ? "Great job! You got it right!" : `Oops! The
answer was ${currentLocation.key.toUpperCase()}.`);
  resetUserInput(); // Reset the input field after checking the answer
}
// Load a location on boot of page
document.addEventListener("DOMContentLoaded", () => {
__displayLocation();
```

> 7. Code Overview:

- index.html: Handles the game introduction and navigation.
- game.html: Contains the game interface, hint buttons, and location display.
- style.css: Provides styling, ensuring a clean and responsive layout.
- **script.js:** Contains game logic, including random location generation, answer checking, and map loading.

8. Conclusion:

MapMystery is a simple yet engaging game that combines learning and entertainment. The use of the Google Maps API brings real-world exploration into the game, making each round a new adventure.