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HND SOFTWARE DEV (YEAR2)

TESTING PLAN DOCUMENT

COIN FLIP APP

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# Purpose of this Document

The test document serves as a comprehensive guide for evaluating the functionality, usability, and performance of the Coin Flip application.

The document provides a detailed test plan, covering various aspects such as navigation, menu clarity, error handling and overall functionality. It aims to provide a structured approach to testing, ensuring that the app meets user expectations, runs smoothly, and handles potential problems efficiently.

This document only contains the test plan, actual tests are documented and contained in separate folder within the documents folder.

Through a systematic testing strategy, this document aims to guarantee a robust and user-friendly experience for those using the Coin Flip app.

# Objective

The main objective of this test plan is to examine and ensure the functionality and reliability of the Coin Flip App, so that it works properly and so that the user has flawless experience.

# Test Scope

The testing will cover the basic functionality of the application, including coin flipping, guess mode and user interface and responsiveness.

The testing will also test the score system, to see if there are no logic errors, and the score is right.

# Test Strategy

The test strategy will include the following types of testing:

## Functional Testing

This test will focus on verifying that the coin flip button works as expected. Confirming that the app displays the right output, and correctly incrementing the score of Heads and Tails.

As well as to check the functionality of the menu and navigation, and to test the guess mode feature; to see if the right message and sound play when guessing.

## Usability Testing

This test will solely focus on evaluating the user interface. This test will evaluate the user interface for clarity and ease of use and ensure that the app follows UWP design guidelines.

## Compatibility Testing

This test will focus on verifying that the app functions correctly on different UWP devices. It will check for compatibility with different screen resolutions.

## Unit Testing

The unit testing phase focuses on the systematic evaluation of individual components and functions of the Coin Flip application.

This includes rigorous testing of core functions such as the coin flip mechanism, score calculation and data handling.

Unit tests will verify that each method and class work as expected, ensuring accurate results during coin flips, correct recording of historical data and seamless integration of audio and visual elements.

Additionally, unit tests will cover edge cases and potential error scenarios to ensure the application is reliable and resilient under a variety of conditions. The aim is to isolate and evaluate each unit of code to verify its correctness, performance, and resilience, contributing to the overall stability and quality of the Coin Flip application.

## Scenario Testing

Scenario testing involves systematically evaluating the application's performance under various user-driven scenarios.

Each scenario represents a specific use case, ensuring that the app meets user expectations and functions correctly in different situations.

For example, scenarios could cover simple coin flips, adjusting coin types, changing flip durations, and trying out the Guess Mode feature.

By systematically executing these scenarios, the testing process aims to identify potential issues, such as incorrect coin results, application crashes, or unexpected behaviour.

Additionally, scenario testing allows for the validation of user interactions, ensuring a seamless and intuitive experience.