

FRONT-END CODE TEST

FUNCTIONAL SPECIFICATIONS

Version	1.02	Date	2022-03-16
Product	N/A	Client	Internal
Produced by	Golden Race	Category	Technical
Status	Final	Audience	Confidential

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About this document

Scope

This document provides the description of all the functional aspects of the *Front-end Code Test* game, a simple lottery game meant to test the abilities of potential job applicants. The goal is to create this simple game following the specs and utilizing an specific set of frameworks and patterns.

Game Rules

Reference	Description
[RULES-FCT-01-M]	10 balls are placed in the lottery drum
[RULES-FCT-02-M]	1 ball is drawn per event.
[RULES-FCT-03-M]	Each ball is numbered (from 1 to 10)
[RULES-FCT-04-M]	Each ball has the same probability to be drawn.
[RULES-FCT-05-M]	Minimum bet is 5 €
[RULES-FCT-05-M]	A winning bet will return 1.5 profit to the user

Main Components

Reference	Description
[COMP-FCT-01-M]	Ball selector It will be responsible for displaying the betting opportunities and register user selection
[COMP-FCT-02-M]	Bet slip It will be responsible for displaying the selection made by the user, the amount of money he is going to bet, and it will hold the button to place bet and start game.

Functional Requirements

Reference	Description
[REQ-FCT-01-M]	Ball Selection As a user I should be able to select one ball using <i>Ball selector</i> out of ten possibilities to place my bet on. That selection should appear in <i>Bet slip</i> component.
[REQ-FCT-02-M]	Input stake As a user I should be able to input an amount of money to place a bet. This amount should comply with <i>[RULES-FCT-05-M]</i> . If not, we should inform the user with a message.
[REQ-FCT-03-M]	Place Bet As a user when I click "Place Bet" button, game should start and produce a random result.
[REQ-FCT-04-M]	Display game result

	Ball produced as game result should be displayed, and a message should inform the user if he won or he lost, and how much money.
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Non Functional Requirements

Reference	Description
[NREQ-FCT-01-M]	App should be written in Typescript
[NREQ-FCT-02-M]	App should use Angular v13.
[NREQ-FCT-03-M]	All the components, pipes, and services should have unit tests.
[NREQ-FCT-04-M]	App should use RxJS and Observables.
[NREQ-FCT-05-M]	The linter must work by running ng lint.
[NREQ-FCT-06-M]	All the assets should be included inside the project. Using a CDN to load libraries, styles or fonts is not an option.
[NREQ-FCT-07-M]	CSS Frameworks or component libraries can't be used.
[NREQ-FCT-08-M]	The application should not throw unhandled errors on the console.

Things we value

- Strongly typed code
- Documentation
- The fewer external dependencies the better
- Angular forms and validators usage
- Prettier usage
- Advanced RxJS usage
- SCSS Variables or CSS Custom Properties usage
- CSS Flex or Grid usage
- Git usage

UI Prototype

Numbers

1

2

3

4

5

6

7

8

9

10

Clear selection

1

3

5

7

9

5x

100

Ok

Total: 500€

Place bet

Result

5

YOU WON

1

3

5

7

9

5x

100

Ok

Total: 500€

Place bet