

National College of Ireland

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**<**[**Market-Live-Prices-Team-Project**](https://github.com/EskandarAtrakchi/Market-Live-Prices-Team-Project) **>**

Technical Report

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# Executive Summary

This technical report document will be detailed by the team knowing that each team member did their part on the document. This document is subject to change if the team decides to make modifications/changes to the product.

The porpuse of this report is to present the project that we have built, the technologies we have used, and the architecture of the project.

We will define the aim, system mechanisms used, codes, and requirements.

We will try to publish the testing results then the conclusion of all above.

# Introduction

## Background

The blockchain technology is evolving every single day and, and it is growing at a very fast scale, the crypto market is setting at 2.8 trillion dollars at the time of writing this document.

## Aims

We aim to enter the industry by providing services, as the market is volatile trades or anyone on earth who want to know the prices of cryptocurrencies the can by just visting our website!

## Technology

We have used the following technologies:

|  |  |
| --- | --- |
| **Frontend** | **Backend** |
| HTML | Express.js |
| CSS | CORS.js |
| Bootstrap | Nodemon |
| JavaScript | Node.js |
| Chart.js | Socket.io |
|  | Origins |
|  | Axios |
|  | HTTPS |
|  | localStorage |

# System

## Requirements

The system targets those who want real-time information without the need for registration or their private details. A feedback mechanism will be implemented to take it fully from user’s perspective and see what the market requires.

Description: Users should be able to receive real-time updates on the prices of selected cryptocurrencies. The system must provide accurate and up-to-date information, including the current market price in US dollars.

Rationale: Individual investors and traders need timely information to make informed decisions. Real-time updates ensure that users have the latest data to react to market changes promptly. The users should be able to retrieve crypto ID numbers with the same name of cryptocurrency from the crypto market. Users can see the frame of crypto bubbles from the webpage.

## Functional Requirements

This section lists the functional requirements in **ranked order**. Functional requirements describe the possible effects of a software system, in other words, what the system must accomplish. Other kinds of requirements (such as interface requirements, performance requirements, or reliability requirements) describe how the system accomplishes its functional requirements. Each functional requirement should be specified in a format similar to the following:

Short, imperative sentence stating highest ranked functional requirement.

## Use Case Diagram

FeedBack

A diagram of a diagram

Description automatically generated

Eskandar Use case Diagram

1. Viewing the website: after the user interacts with the product, they can submit their feedback form.
2. Filling feedback form: the user will be prompt to a form to fill and submit, with in the form the user must choose one of the following categories: Accessibility, Real-time Prices, Chats, and Crypto IDs
3. Message/subject: to fill out a message attached with the feedback.
4. Satisfaction level: the user can select very high, medium, or very low.
5. Attach file: the user will be able to to select a file from their local storage.
6. Submit: the user will submit their feedback and an acknowledgement will be sent

Price Retrieval

A diagram of a diagram

Description automatically generated

Yonas Use case Diagram

1. The user will interact with the website page to search crypto prices using the name.
2. If the user input null or wrong input the system will inform them to try again with correct information.
3. If the user input correct information the system will fetch the data with expected functionality.

## Requirement 1 <Name of requirement in a few words>

The heading of this section should read, e.g., “Requirement 1: User registration” or “Requirements 1: Participant takes test”

## Description & Priority

A description of the requirement and its priority. Describes how essential this requirement is to the overall system.

## Use Case

Each requirement should be uniquely identified with a sequence number or a meaningful tag of some kind.

**Scope**

The scope of this use case is to …….

**Description**

This use case describes the ………..

**Use Case Diagram**

Diagram should highlight actors and uses cases……..

**Flow Description**

**Precondition**

The system is in initialisation mode……..

**Activation**

This use case starts when an <Actor>…………

**Main flow**

1. The system identifies the ………….
2. The <Actor> …………...(See A1)
3. The system …………..(See E1)
4. The <Actor> ………….

**Alternate flow**

A1 : <title of A1>

1. The system …………..
2. The <Actor> ………….
3. The use case continues at position 3 of the main flow

**Exceptional flow**

E1 : <title of E1>

1. The system …………..
2. The <Actor> ………….
3. The use case continues at position 4 of the main flow

**Termination**

The system presents the next ……….

**Post condition**

The system goes into a wait state

**List further functional requirements here, using the same structure as for Requirement1.**

## Data Requirements

## User Requirements

## Environmental Requirements

## Usability Requirements

## Design & Architecture

Describe the design, system architecture and components used. Describe the main algorithms used in the project. (Note use standard mathematical notations if applicable).

An architecture diagram may be useful. In case of a distributed system, it may be useful to describe functions and/or data structures in each component separately.

## Implementation

Describe the main algorithms/classes/functions used in the code. Consider to show and explain interesting code snippets where appropriate.

## Graphical User Interface (GUI)

Provide screenshots of key screens and explain what can be seen in each one.

## Testing

Describe any testing tools, test plans and test specifications used in the project.

# Conclusions

Describe the advantages/disadvantages, strengths and limitations of the project

# Further Development

With additional time and resources, which direction would this project take?

# References

Please include references throughout your document where appropriate. See [here](https://libguides.ncirl.ie/referencingandavoidingplagiarism) for a guide on referencing from the NCI library.

# Appendices

This section should contain information that is supplementary to the main body of the report.

## Project Plan

## Collaboration Summary

Summarise and provide evidence of collaboration throughout the project. Evidence may take the form of Trello boards, Chat logs, Git Logs etc.