



**Technical Solution Design**

**for**

**Budding Sharemarket Investor**



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Sponsor: RMIT

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Commercial - in – Confidence

Document Control

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***Preface***

The purpose of this document is to outline the Technical Solution Design for Budding Sharemarket Investor application project.This document describes the technical environment, overall project architecture, system architecture, application functionalities and features, database architecture, implementation instructions, non-functional specifications, summary of test results, known issues and risks.

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# **1** **Introduction**

<Paragraph summary of the technical solution that was completed including:

· Brief project description

· Brief description of technical environment

· Estimated level of complexity

· **Estimated benefits/Problems it solved (quantitative & qualitative)***.>*

The Budding Sharemarket Investor game will allow players to create an account, log into the web application, use bogus money to simulate buying and selling of shares based on actual ASX data. Data will be retrieved via web service calls to a finance API, and will be used in the buying, selling and tracking of shares in the market.

The budding investor game will be hosted online **(Heroku or AWS free tier ?)**, and built with a combination of PHP, mySQL, HTML and CSS. Users will be able to navigate to the site, log on or register, and begin dealing in the faux marketplace. There will also be admin functionality built into the site. BitBucket will be used for a version control tool, and some testing tools such as **Unitest?**

\*\*\*Usage of CI (Continuous Integration) or automated testing tool is not a must but recommended\*\*\*

The application will initially display a lower level of complexity and as the project development progresses, it will transition into a moderate level of complexity while remaining objective to the project requirements.

**Estimated benefits/Problems it solved (quantitative & qualitative)***.>*

# **2** **Technical Environment**

<Detail the technical environment/technologies used to complete this project and reason for the choice of the specific technology that is used. For instance, if PHP is used, why it is chosen and if GITHUB etc is used for source control please specify those details as well..>

**3** **Overall Architecture**

<Outline the overall architecture of the solution which details how the system will interact with the world or other systems etc. Explain it using a diagram.>

# **4** **System Architecture**

<Detail the system that was built/completed. Explain each component thoroughly. A architecture diagram is essential. >

## **4.1** **Functionalities/features**

<Detail the individual/specific functionalities that comprise the system.>

1. User Account - Sign Up
2. User Login / Logout
3. User buying and selling of shares
4. Applications provides live updates of share prices
5. Application provides a history of share price fluctuations
6. Application provides player’s current balance
7. Application maintains an updated leader board
8. Application offers appropriate admin functionality

### **4.1.1** **Functionality 1**

<explain each functionality using a flow chart>

### **4.1.2** **Functionality 2**

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### **4.1.3** **.Funcitionality N**

# **5** **Database Architecture**

<Explain the database architecture/schema and why it is built in the way it is and how scalable it will be.>

# **6** **Implementation Instructions**

< List the implementation instructions and the basic specs of the server needed. Also provide details regarding data migration or if its replacing or enhancing an existing system what are the steps needs to take to ensure there is no data loss.>

# **7** **Non-functional specifications**

<Detail all the non-functional specification of the system.>

# **8** **Summary of test results**

<Provide the summary of the test cases and results in tabular format.>

# **9** **Known Issues & Risks**

<Outline any known issues and/or risks that are likely to impact or be caused by this initiative in any way.>

# **10** **Other Considerations**

<Discuss any other considerations for this project proposal’s acceptance and delivery.>

# **11** **Appendix**

<Refer the tool that is used to capture the functional requirement and if possible provide the references to the tool and also a summary of the functional requirement. It can be simply compilation or copy of the user stories from JIRA/Rally.>

<NOTE: These headings are guidelines only. Based on your project, you might require additional headings, so feel free to add headings as required.>