

NATIONAL UNIVERSITY OF SINGAPORE

Skylab: NUS Orbital Project Platform

by

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A thesis submitted in partial fulfillment for the
degree of Bachelor of Engineering

in the
Faculty of Engineering
Computer Engineering

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Declaration of Authorship

I, Gu Junchao, declare that this thesis titled, ‘Skylab: NUS Orbital Project Platform’ and the work presented in it are my own. I confirm that:

- This work was done wholly or mainly while in candidature for a research degree at this University.
- Where any part of this thesis has previously been submitted for a degree or any other qualification at this University or any other institution, this has been clearly stated.
- Where I have consulted the published work of others, this is always clearly attributed.
- Where I have quoted from the work of others, the source is always given. With the exception of such quotations, this thesis is entirely my own work.
- I have acknowledged all main sources of help.
- Where the thesis is based on work done by myself jointly with others, I have made clear exactly what was done by others and what I have contributed myself.

Signed:

Date:

“If debugging is the process of removing software bugs, then programming must be the process of putting them in.”

Edsger Dijkstra

NATIONAL UNIVERSITY OF SINGAPORE

Abstract

Faculty of Engineering

Computer Engineering

Bachelor of Engineering

by Gu Junchao

The Thesis Abstract is written here (and usually kept to just this page). The page is kept centered vertically so can expand into the blank space above the title too...

Acknowledgements

I would like to express my most sincere appreciation to my project supervisor and project administrator, Dr. Min-Yen Kan. Throughout this project, it was him who tirelessly provided me with significant support and assistance. I would also like to appreciate Orbital Program advisers and students for suggesting many useful features and bringing up issues to make Skylab more usable.

Contents

Declaration of Authorship	i
Abstract	iii
Acknowledgements	iv
1 Introduction	1
1.1 Challenges	1
1.1.1 A Subsection	1
1.2 Importance of Work	2
1.3 Objectives	2
2 Background	3
2.1 Literature review	3
2.2 System design	3
2.3 Development process	3
A An Appendix	4

Chapter 1

Introduction

Orbital is the School of Computings self-driven programming summer experience. It is designed to give first-year students the opportunity to 1) self-learn and 2) build something useful. It is designed as a 4 modular credit (MC) module that is taken pass/fail (CS/CU) over the summer1.

For the evaluation of Orbital program, students are supposed to submit to Milestones as a team, stating what they have done during that phase. And then assigned peer teams(each team will be assigned about 3 peer teams) will be giving feedback regarding the submission and the application built by the team of students. At the same time, there will be an adviser who will overlook the whole process and provide evaluation of a team's submission too. After 3 submissions and evaluations are done, a feedback is expected from a team to its peer teams and it adviser regarding the quality of evaluations received.

The nature of Orbital defines the scope of Skylab A development project built for peer evaluations. It also provides students with a real-life Software Engineering training ground to learn and sharpen coding and system designing skills.

1.1 Challenges

System design: Evolving requirements: Data migration: Developing process: Coding quality/maintainability: System administration:

1.1.1 A Subsection

Just leave it here

1.2 Importance of Work

To be continued

1.3 Objectives

To be continued

Chapter 2

Background

Skylab is built on top of Ruby on Rails, a well known web development framework, with a great support of large communities, used widely in the industries by companies like Twitter, Groupon, Bloomberg, Airbnb and many more.

2.1 Literature review

To be continued

2.2 System design

To be continued

2.3 Development process

To be continued

Appendix A

An Appendix

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