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**Project Name**

Final Project Design Document

Prepared by: Michael Fesser

Date Submitted: May 25, 2014

# Document Change Control

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| **Date** | **Authors** | **Summary of Changes** |
| May 25, 2014 | Michael Fesser | Initial project proposal |
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# Document Sign-Off

The following people have reviewed and approved the entire content of this proposal document.

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| **Position** | **Name** | **Signature** | **Date** |
| Instructor |  |  |  |
| Student | Michael Fesser |  | May 25, 2014 |
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# 1.1 Project Team members

Michael Fesser

# 1.2 Project Description

The purpose of this project is to create a booking system for storage units. The program will provide various functionality related to booking, releasing, and tracking of any number of storage unit of any size.

This product is an online reservation system with specific functionality related to storage units.

Currently it is possible to reserve storage units online, but there are many smaller companies that would benefit from this technology, that might not have to capital to pay a large company to develop this technology for them.

# Primary Functions

* + 1. Allow the creation of accounts

Allow a single built in account to add other account types including users, and administrators.

* + 1. Allow users to log in

All users will have an Id and a password that they will use to login into the system.

* + 1. Allow users to book, extend, and release storage units

This functionality will allow a user to book a storage unit. It will also allow them to extent the length of time of each storage unit unless the unit it booked already in the future. Finally a user will be able to release a unit at any time allowing another person to book that unit.

* + 1. Check for any booking overlap

Related to the above functionality check to make sure a unit is not booked by two different users at the same time.

* + 1. Allow administrators the above functions

Allow an administrator all the same functions in 1.3.3 and 1.3.4 that will override any regular user.

* + 1. Display the storage units by size, availability, etc.

This part of the functionality will allow the users to see all the units based sorted by size then by release date. This would show the storage unit regardless if it booked or not. It would also give information as to when the unit was available. Unit booking would be available from this view.

* + 1. Create a calendar that will show the storage units available on that specific day

This would be a basic calendar that when clicked would show all the storage units available that day. It would also give information as to when the unit was available. Unit booking would be available from this view.

* + 1. Hide the details from the users regarding other clients

This is intended to hide any unnecessary information about a booking form other users.

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# 1.4 Secondary Functions

1.4.1 Update notices

Given the time, automatic or manual update notices regarding the storage unit would be sent to the user or listed within their account.

1.4.2 Payment systems

A basic payment system that would allow the user to pay for the storage unit they booked.

1.4.3 Tracking abandoned storage units

Flag any unit within the system that has not been released but still is in use.

1.4.4 Grading and pricing system for the storage units

This system would allow staff at the storage facility to review the general quality of the storage units and rate them and provide a potential discount for any units that are not ideal.

1.4.5 EULA

Add an end user licensing agreement.

# 2.1 Class Design

The following classes will be used to provide the functionality of the system. These classes will correspond to the database tables which will be used to store the information.

# 2.2 Interface Design

Provide a mockup of the screens that you expect to use in your project. Also provide a brief description (paragraph of two) describing each of the screens to be used in your program.

### 2.2.1 Main Menu

*This section should provide screen mockups for the screens of the system. As well notes can be provided to clarify the functionality where required.*

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| Jim’s Storage  Main Menu  Login  View Storage Units  Signup |
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Notes:

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| Jim’s Storage  Signup  User Name:  Password:  Confirm Password:  Email:  Confirm Email:  Address:  City:  Province:  Phone Number:  EULA check box  Submit Cancel |
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Notes:

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| Jim’s Storage  Login  Username:  Password:  Submit Cancel |
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Notes:

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| Jim’s Storage  Welcome “User”  View unit View all units View Calendar Update Profile Logout  Display Unit information  Extend Unit Release Unit  Display Unit information  Extend Unit Release Unit |
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Notes:

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| Jim’s Storage  Calendar  View unit View all units View Calendar Update Profile Logout   |  |  |  |  |  |  |  | | --- | --- | --- | --- | --- | --- | --- | |  |  |  |  |  |  |  | |  |  |  |  |  |  |  | |  |  |  |  |  |  |  | |  |  |  |  |  |  |  | |  |  |  |  |  |  |  | |  |  |  |  |  |  |  | |
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Notes:

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| Jim’s Storage  Calendar view  May 10, 2014  Unit A 14X15 Available, Date Reserved Reserve  Unit C 10X10 Available, Date Reserved Reserve  Unit D 5X10 Available, Date Reserved Reserve  etc.  Back |
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Notes:

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| Jim’s Storage  Storage Unit Listing  View unit View all units View Calendar Update Profile Logout  Unit A 14X15 Available, Date Reserved Reserve  Unit B 14X15 Reserved, Date Available Reserve  Unit C 10X10 Available, Date Reserved Reserve  Unit D 5X10 Available, Date Reserved Reserve  etc.  Back |
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Notes:

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| Jim’s Storage  Reserve Unit  Start Date:  End Date:  Submit  Back |
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Notes:

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| Jim’s Storage  Change Profile  View unit Release Unit View all units View Calendar Update profile Logout  Password:  Confirm Password:  Email:  Confirm Email:  Address:  City:  Province:  Phone Number:  Submit Cancel |
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Notes:

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| Jim’s Storage  Administrative view  Search Unit Add Unit Extend Unit Release Unit View all units View Calendar Add User Remove User Update Profile Logout  Unit ID:  User Name:  User’s Last Name:  Search |
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