

ASSIGNMENT COVERSHEET

UTS: ENGINEERING & INFORMATION TECHNOLOGY

SUBJECT NUMBER 31279	NAME OF STUDENT(s) (PRINT CLEARLY)		STUDENT ID(s).
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NAME OF TUTOR Ayman Ahmed Elgharabawy	TUTORIAL GROUP Group Name: SEP-Wrk-08-G05		DUE DATE 03/09/2018
ASSESSMENT ITEM NUMBER/ TITLE Assignment 1 UTS student personal loan application			
<input checked="" type="checkbox"/> I confirm that I have read, understood and followed the guidelines for assignment submission and presentation on page 2 of this cover sheet. <input checked="" type="checkbox"/> I confirm that I have read, understood and followed the advice in my Subject Outline about assessment requirements. <input checked="" type="checkbox"/> I understand that if this assignment is submitted after the due date it may incur a penalty for lateness unless I have previously had an extension of time approved and have attached the written confirmation of this extension.			
Declaration of Originality: The work contained in this assignment, other than that specifically attributed to another source, is that of the author(s) and has not been previously submitted for assessment. I understand that, should this declaration be found to be false, disciplinary action could be taken and penalties imposed in accordance with University policy and rules. In the statement below, I have indicated the extent to which I have collaborated with others, whom I have named.			
Statement of Collaboration: Tong Lei Jianshun Jiang Yunhan Zhan Shan Lu Wenbo Qi Xiaoyang Wang Signature of Student(s) _____ Date _____ 02/09/2018			

ASSIGNMENT RECEIPT

To be completed by the student if a receipt is required

SUBJECT NAME/NUMBER Software Engineering Practice 31279	NAME OF TUTOR Ayman Ahmed Elgharabawy	
SIGNATURE OF TUTOR		RECEIVED DATE



UTS student personal loan application

SEP assessment 1



12416881 - Tong Lei (Project Leader)
12201846 - Jianshun Jiang
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1. Approved Project Idea Proposal

1.1. Project Overview

Project Title:

UTS Student Personal Loan Application System

Proposed By:

12416881 - Tong Lei (Project Leader)

12201846 - Jianshun Jiang

12840221 - Yunhan Zhan

12701759 - Shan Lu

12665396 - Wenbo Qi

99196305 - Xiaoyang Wang

Date:

August - October, Spring 2018

Group Name:

Niubility

Approved by (Customer / Program Manager):

Ayman Ahmed Elgharabawy

1.2. Project Description

The 21st century is an era in which technology and humanities are developing at a rapid pace. There is a great demand for networking and convenient lifestyles. Among the many online needs, we believe that online lending is an aspect that needs to be widely developed and applied. Our team is dedicated to researching and developing a secure web loan app that can be delivered to UTS students personally. This web-based loaning app needs to be secure, convenient, private, reasonable, universal

and compatible with multiple languages. Users, mainly students, can apply for financial help in a fast and secured way.

Planned Duration and Budget

With the team members fully agreeing, each standard iteration from 0 to 3 will last 7 to 10 days, and the timetable will be relatively adjusted when the individual iteration time changes. The team will try to ensure that all displayable applications are completed around October 10th. Moreover, use the remaining time to check and correct the program. Then, completing the centralized discussion of the team members before October 15th. In each iteration, the programming of the software and the work of different team members are supervised and completed on time. The estimated cost per person is \$80 per day and the working time is no more than 8 hours.

Current System/Process/Situation

In Australia, some students' college tuition and living expenses are paid for by part-time work or bank and school loans. Regarding the current state of UTS, three online loans are offered: short-term student loans, government help loans, and external loans. Some of the Australian students' college tuition and living expenses are paid for by part-time work or by banks and individuals. Individual schools may provide students with a loan system based on cooperation with banks. However, UTS is not very prominent in this respect and has great potential for improvement.

There are four steps to applying for a loan at UTS:

1. Complete a loan application form.
2. Make an appointment with a Financial Assistance officer.
3. Complete the loan form online before your interview
4. Bring your student card, bank details and supporting documents to the interview.

The face-to-face loan process needs to be queued online and waiting for a relatively long period (a few weeks or even months).

1.3. Project Objectives

At present, the UTS lending system has a long processing and approval time and relies too much on human resources when manpower is not sufficient. To improve the UTS loan application, we hope to achieve the following goals in our upcoming web loan application:

- Minimize face-to-face processes (as much as possible on the website)
- Speed up the assessment of the credibility of loan students or employees
- Improve student and employee satisfaction
- Simple interface design, easy to operate

The main stakeholders of the web application:

- Student (undergraduate/postgraduate)
- Financial assistance officer in UTS

1.4. Project Scope (Target System)

Our target program is an innovative next-generation website loan app open to all UTS employees and students. For loan applicants (employees/students), they can use their work number or student number to register an account and password for applying for a loan. The loan application options on the website and the relevant application forms required will also be provided to the applicants. In the process of filling out the application form, the upload function of the attached file will also be implemented. When the time is limited, the applicants can edit the loan application form later, and the system will reserve the application information for the users for a period. After the applicants complete the loan application form and upload additional documents, the applicants will be able to check his application information and the loan application process at any time so that the applicants can find the status of their loan in more detail. For a system administrator, he or she can add or remove an applicant's account number and password. The loan application for all is also managed by the administrator in order and uniformly. While the loan progresses, the system administrator has the authority to make changes to the progress. Special

loan applications will also be specifically marked on the system administrator's interface. The system administrator also has the authority to add or remove loan administrator information to facilitate review and approval of the applicant's loan.

1.5. Risks, Constraint, and Dependencies

- Time budget constraint
- Team member time coordination and availability constraints
- Some members first contacted agile development
- Team members are familiar with different programming languages, and differences in capabilities and techniques

Risk assessment

This module clearly shows the potential risks that may exist during the final project completion process.

The risk assessment mainly includes:

- Identify the risks of the team may face
- Assess the probability and negative impact of risk occurrence
- Determine the team's ability to respond to risks
- Choose risk reduction measures

Risk Matrix

Risk ID	Risk Type	Description	Action	Possibility	Consequence
1	Electric Shock	Use unsafe or incorrect plugs or cables. Touch electronic device when hands are wet.	Observe the instructions for use of electronic equipment without using incorrect or damaged cables.	Possible	Significant
2	Physical Damage	Hardware damage caused by external environment	Read the usage requirements carefully and use the equipment in a suitable manner.	Possible	Severe
3	Fire Damage	Inappropriate handling of flammable materials, or long-running machinery.	Careful storage of flammable materials, regular closing of electronic components.	Very Unlikely	Significant
4	Equipment Failure	Equipment damage or incorrect operation	Follow the guide to operate the device	Possible	Moderate

Figure 1.5.1: Risk Matrix – 1

	Negligible	Minor	Moderate	Significant	Severe
Very Likely					

Likely					
Possible			4	1	2
Unlikely					
Very Unlikely				3	

Figure 1.5.2: Risk Matrix - 2



Figure 1.5.3: Risk Matrix - 3

2. Agile Requirements Analysis

2.1. Functional Requirements

2.1.1. Agile Requirements Matrix

User Story #	As a/an	I want to	So that	Estimates	Priority	Status	Release	Iteration	Owner	Process/ Service
101	Student	use my UTS account to login the system	I can use the UTS student personal loan application system.	3	H	Done	R1	I1		Account Authentication
102	Student	logout the system	no one can use my account.	2	M	Done	R1	I1		Account Authentication
103	Loan Manager	use my manager account to login the system	I can manage the applications assigned to me.	3	H	Done	R1	I1		Account Authentication
104	Loan Manager	logout the system	no one can use my account.	2	M	Done	R1	I1		Account Authentication

105	System admin	use system admin account to login the system	I can manage the system.	3	H	Done	R1	I1		Account Authentication
106	System admin	logout the system	no one can use my account.	2	M	Done	R1	I1		Account Authentication
201	Student	create the application via the create button	I can fill in a loan application form.	4	H	Done	R1	I1		Application Service
202	Student	submit the application	I can apply for loan help online.	1	H	Done	R1	I1		Application Service
203	Student	the system check my inputs	I can ensure all information of my form is correct.	3	L	Processing	R2	I2		Application Service
204	Student	receive emails when the application status changes	I can get the information immediately.	5	H	Processing	R2	I1		Application Service
205	Student	upload attachments	I can provide the certification files to approve.	2	M	Processing	R2	I1		Application Service
206	Student	save the application draft	I can edit it later.	5	M	Processing	R2	I1		Application Service

207	Student	delete the application draft	I can save another new draft.	1	L	Processing	R2	I1		Application Service
208	Student	open the application draft	I can complete the application form based on the draft.	2	H	Processing	R2	I1		Application Service
209	Student	finish the application	I can submit the application.	2	H	Processing	R2	I2		Application Service
210	Student	click the check button	the system will tell me what information I miss.	3	H	Remove	x	x	x	x
301	Student	view historical applications	I can know the previous application detail.	4	M	Processing	R2	I2		View Loan application
302	Student	view the processing application	I can know the stage of the application.	2	H	Done	R1	I1		View Loan application
303	Student	search for an application by title or date	I can view specific applications.	2	M	Processing	R2	I2		View Loan application
401	Loan Manager	approve or decline the unsettled application	I can manage the result of the application.	3	H	Processing	R2	I2		Application Management

402	Loan Manager	view the application in detail	I can know the application detail include the attachments.	3	H	Processing	R2	I2		Application Management
403	Loan Manager	list all application by categories	I can quickly find the specific application.	3	M	Processing	R2	I2		Application Management
404	Loan Manager	look at the student's detail by the application	I can know more about the applicant.	3	M	Processing	R2	I2		Application Management
405	Loan Manager	download the attachments	I can get more details about the application.	2	L	Processing	R2	I1		Application Management
501	System admin	add loan administrator account	the loan administrator can access the system.	3	H	Processing	R2	I1		System management
502	System admin	delete loan administrator account	the loan administrator cannot access the system.	1	M	Processing	R2	I1		System management
503	System admin	search for a specific application by title or date	I can manage the specific application.	3	L	Processing	R2	I1		System management
504	System admin	delete application	I can change the wrong application if it causes a system error.	1	L	Processing	R2	I1		System management

505	System admin	view the logs	I know the action that the user does in the system.	5	L	Remove	x	x	x	x
506	System admin	change application status	I can change the application status when the system has the error.	2	L	Remove	x	x	x	x
601	Loan Manager	edit my account including password	I can use the new password.	2	M	Processing	R2	I2		Account detail change
602	System admin	edit my account including password	I can use the new password.	2	M	Processing	R2	I2		Account detail change

2.1.2 Use case

UC101 As a student, I want to use my UTS account to log in the system so that I can use the UTS student personal loan application system.

UC102 As a student, I want to logout the system so that no one can use my account.

UC103 As a loan manager, I won't to use my manager account to log in the system so that I can manage the applications assigned to me.

UC104 As a loan manager, I want to logout the system so that no one can use my account.

UC105 As a system admin, I want to use system admin account to log in the system so that I can manage the system.

UC106 As a system admin, I want to logout the system so that no one can use my account.

UC201 As a student, I want to create the application via the create button so that I can fill in a loan application form.

UC202 As a student, I want to apply so that I can apply for loan application online.

UC203 As a student, I want to the system check my inputs so that I can ensure all information of my form is correct.

UC204 As a student, I want to receive emails when the application status changes so I can get the information immediately.

UC205 As a student, I want to upload attachments so that I can provide the certification files for approving.

UC206 As a student, I want to save the application draft so that I can edit it later.

UC207 As a student, I want to delete the application draft so that I can save another new draft.

UC208 As a student, I want to open the application draft so that I can complete the application form based on the draft.

UC301 As a student, I want to view historical applications so that I can know the previous application detail.

UC302 As a student, I want to view the processing application so that I can know the stage of the application.

UC303 As a student, I want to search for an application by title or date so that I can view specific applications.

UC401 As a loan manager, I want to approve or decline the unsettled application so that I can manage the result of the application.

UC402 As a loan manager, I want to view the application in detail so that I can know the application detail include the attachments.

UC403 As a loan manager, I want to list all application by categories so that I can quickly find the specific application.

UC404 As a loan manager, I want to look at the student's detail by the application so that I can know more about the applicant.

UC405 As a loan manager, I want to download the attachments so that I can get more details of the application.

UC501 As a system admin, I want to add a loan administrator account so that the loan administrator can access the system.

UC502 As a system admin, I want to delete a loan administrator account so that the loan administrator cannot access the system.

UC503 As a system admin, I want to search for a specific application by title or date so that I can manage the specific application.

UC504 As a system admin, I want to delete application so that I can change the wrong application if it causes a system error.

UC601 As a loan manager, I want to edit my account including password so that I can use the new password.

UC602 As a system admin, I want to edit my account including password so that I can use the new password.

2.1.3 Use case narratives

Use Case ID	UC201: Create an application
User Story	As a student, I want to create the application via the create button so that I can fill in a loan application form.
Goal	Create the application for the personal loan
Priority	H
Actors	Primary actor - Student Secondary Actor - UTS student personal loan system
Pre-conditions	The student has to log in the system successfully.
Post-conditions	The system shows the application page successfully.
Trigger	The student clicks the “create application” button.
Main Flow	<ol style="list-style-type: none"> 1. UTS student personal loan system displays the login page and displays the login button. 2. The student enters the UTS student ID and password and clicks the login button. Refer to UC101: Login the system. 3. UTS student personal loan system displays homepage and displays the loan application list. 4. Student click the “create application” button 5. New application windows popup. Refer to UC202: Submit loan application.
Exceptions	Exception 1. Step 4: If the student has one application in processing, the student cannot create new application until the application processing completed.
Includes/Extends/Inherits	Extends: UC202: Submit a loan application Include: UC101: Login the system Include: UC102: Logout the system
Supporting Information	Student only can create one application when the student has the other application in processing. All the applications will store in the database server.

Non-functional Requirements	Performance: Login to the system in 5 seconds. Security: 1. Personal information is encrypted. 2. The login password is masked.
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Use Case ID	UC202: Submit a loan application
User Story	As a student, I want submit the application so that I can apply for loan application online.
Goal	Submit the loan application to the loan manager for getting the personal loan.
Priority	H
Actors	Primary actor - Student Secondary Actor - UTS student personal loan system
Pre-conditions	Student finish fills out the application and clicks submit button.
Post-conditions	The application has successfully submitted via the UTS student personal loan system.
Trigger	The student clicks the “submit application” button.
Main Flow	<ol style="list-style-type: none"> 1. The UTS student personal loan system display the new application. 2. Student starts to fill up the information that the application needs. 3. A student can click the “Check” button to check the information that the student provides is correct. Then refer to UC203 Check require information. 4. Student uploads the important document for the loan review. Then refer to UC205 Upload Attachments. 5. If the student wants to fill out the application later, the student can click the “Save” button. Then refer to UC206 Save application. 6. The student clicks the “Submit” button to submit the application. 7. The system displays the submit a receipt. 8. The system will bring the student to the home page and the application display in the application list. 9. Use case end.

Exceptions	<p>Exception 1. Step 6 - The system will active the “UC203 Check require information” to check the require information has been fill in when the student clicks the “Submit” button.</p> <p>Exception 2. Step 2-4 -If a student cancels the application, the system popup the windows to ask if the student wants to exit the system without saving.</p>
Includes/Extends/Inherits	Includes: UC205 Upload attachments Includes: UC206 Save application Includes: UC203 Check require information Extends: UC201: Create an application
Supporting Information	System automatic save the draft when the user closes the application accidentally.
Non-functional Requirements	Performance: Receive the notification within 10 seconds after I upload any files to the system.

Use Case ID	UC402: View application
User Story	As a loan manager, I want to view the application in detail so that I can know the application detail include the attachments.
Goal	To check the application match the loan requirement.
Priority	H
Actors	Primary actor - Loan manager Secondary Actor - UTS student personal loan system
Pre-conditions	Loan manager got a list of loan application.
Post-conditions	Loan manager clicks one loan application to view.
Trigger	Loan manager clicks one application.
Main Flow	<ol style="list-style-type: none"> 1. Loan manager click “List all application” button. Refer to UC402: List all the application. 2. System search in the database and displays the application to

	<p>the loan manager. Refer to UC402: List all the application.</p> <ol style="list-style-type: none"> 3. Loan manager clicks one of the loan application. 4. The system opens the application with details. 5. Loan manager reviews all the detail that provides by the student. 6. Loan manager can view the attachment online or download the attachment. Refer to UC405: Download attachment. 7. Loan manager can click on the application and view the applicant detail. Refer to UC404: View applicant detail. 8. Loan manager base on the detail and the professional judgment approve or decline the application. Refer to UC401: Approve or decline the application. If the loan manager click “Require more information” button, then refer to Alternate Flow 1: “Require more information.” 9. Loan manager leaves the comment about why makes this decision. 10. Loan manager clicks the “Submit” button. 11. The system displays the submit information successfully. 12. System automatic send out the email to the student. Refer to UC204: Receive email. 13. Use case end.
Exceptions	<p>Exception 1. Step 2: If no applications allocate to the loan manager, the system displays the “No application” message in the center of the page.</p> <p>Exception 2. Step 8-9: If the loan manager closes the review windows of the application, the system will display the warning box to notifies the loan manager is closing without submitting.</p>
Includes/Extends/Inherits	Include: UC401: Approve or decline the application Include: UC404: View applicant detail Include: UC405: Download attachment Extend: UC402: List all the application Extend: UC204: Receive email
Supporting Information	System automatic save the draft when the user closes the application accidentally.
Non-functional Requirements	Performance: Login to the system in 5 seconds. Security: 1. Personal information is encrypted. 2. The login password is masked.

Alternate Flow 1	“Require more information.”
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Trigger	Loan manager clicks the “Require more information” button.
Step	<ol style="list-style-type: none"> 1. The system displays the list for the loan manager to select which information is missing. 2. Loan manager selects the boxes in the list and clicks “ok.” 3. Re-join at Step 9 in the Main Flow.
Post conditions	The UTS student personal loan system displays the miss information table.
Exceptions	None

2.3. Non-functional Requirements

Non-Functional									
User Story #	As a/an	I want to...	So that...	Estimates	Priority	Release	Iteration	Owner	Process/Service
NFR-Security Requirements									
701	Student	My personal information is encrypted	I can log in the system securely	3	H	R1	I1	Lei	Login
702	Student	My login password is masked	I can securely access the student personal loan application system	2	M	R1	I1	Lei	Login
703	System Admin	My personal information is encrypted	I can log in the system securely	3	H	R1	I1	Lei	Login
704	Loan administrator	my personal information are encrypted	I can log in the system securely	3	H	R1	I1	Lei	Login
705	Loan administrator	My login password is masked	I can securely view the student personal loan application system	2	M	R1	I1	Lei	View loan application
706	System	My login password is masked	I can securely access the	2	M	R1	I1	Lei	System

	Admin		student personal loan application system							management
NFR-Performance Requirements										
801	Student	Log in to the system in 5 seconds	I can have a better user-friendly experience	5	M	R1	I1	Jensen	Login	
802	Student	Access the loan system by using a mobile phone	I can access the system to edit and submit my registration form	2	M	R1	I1	Jensen	Complete and submit a loan application	
803	Student	Receive the notification within 10 seconds after I upload any files to the system	I can complete and submit the application	3	H	R1	I1	Jensen	Complete and submit loan system	
804	Loan administrator	Receive the loan applications in the different browser	I can review applications to make a decision	2	L	R1	I2	Jensen	View loan system	
805	Loan administrator	Access the loan system by using a mobile phone	I can access the system to review applications and make a decision	2	M	R1	I1	Jensen	View loan system	
806	System admin	Ensure that the system can be available in multiple languages	All users can access the loan application system	4	M	R1	I2	Jensen	System management	
807	System admin	Access the system through my computer	I can manage the system	2	H	R1	I1	Jensen	System management	

3. Agile Planning

3.1 Project Schedule

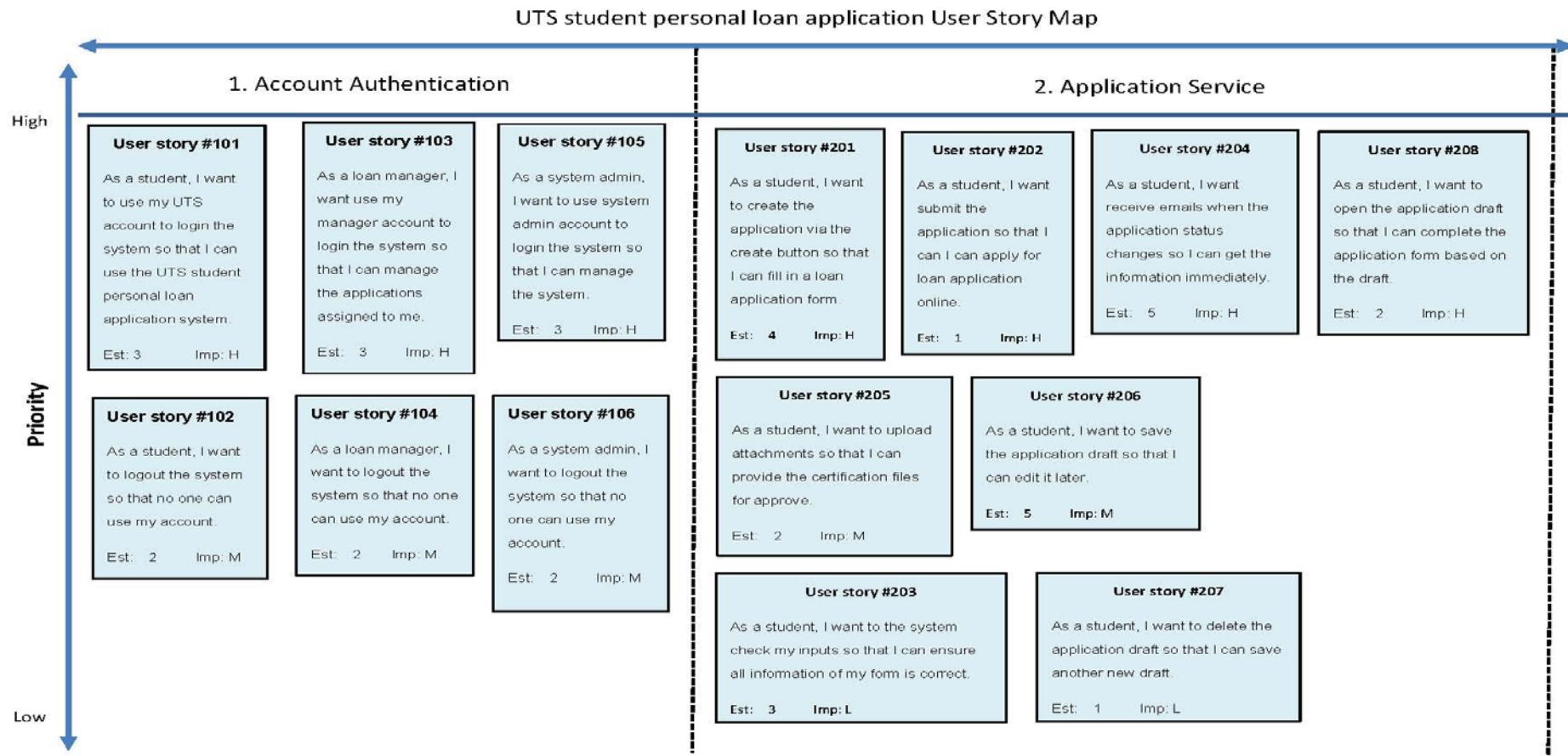
This project is supposed to have two releases. Release 1 is made up of 4 iterations and an additional iteration 0, release two consists of 5 iterations. The project will start at 06/08/2018 and end at 22/10/2018.

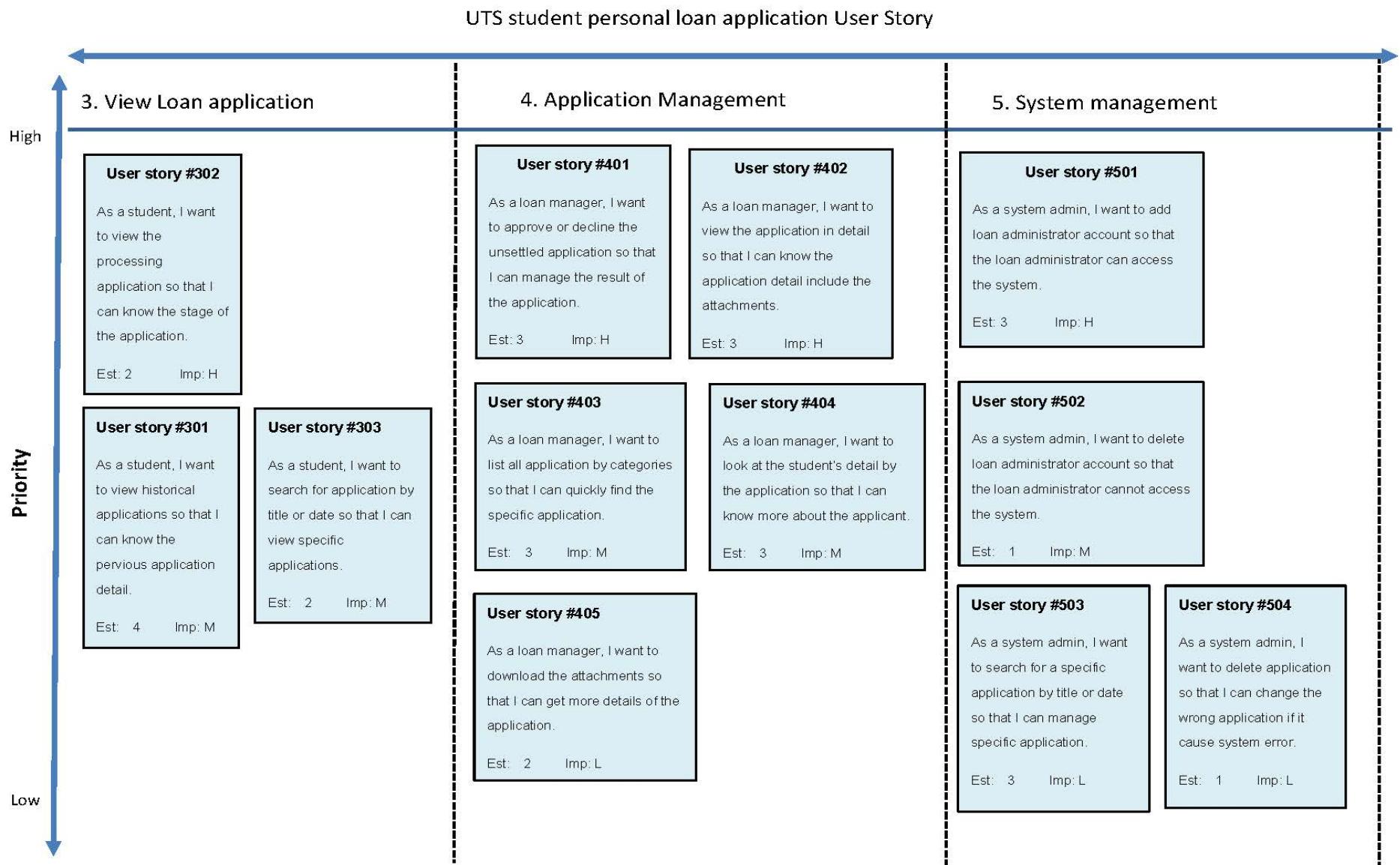
Release 1 Plan will run from 06/08/2018 to 09/09/2018.

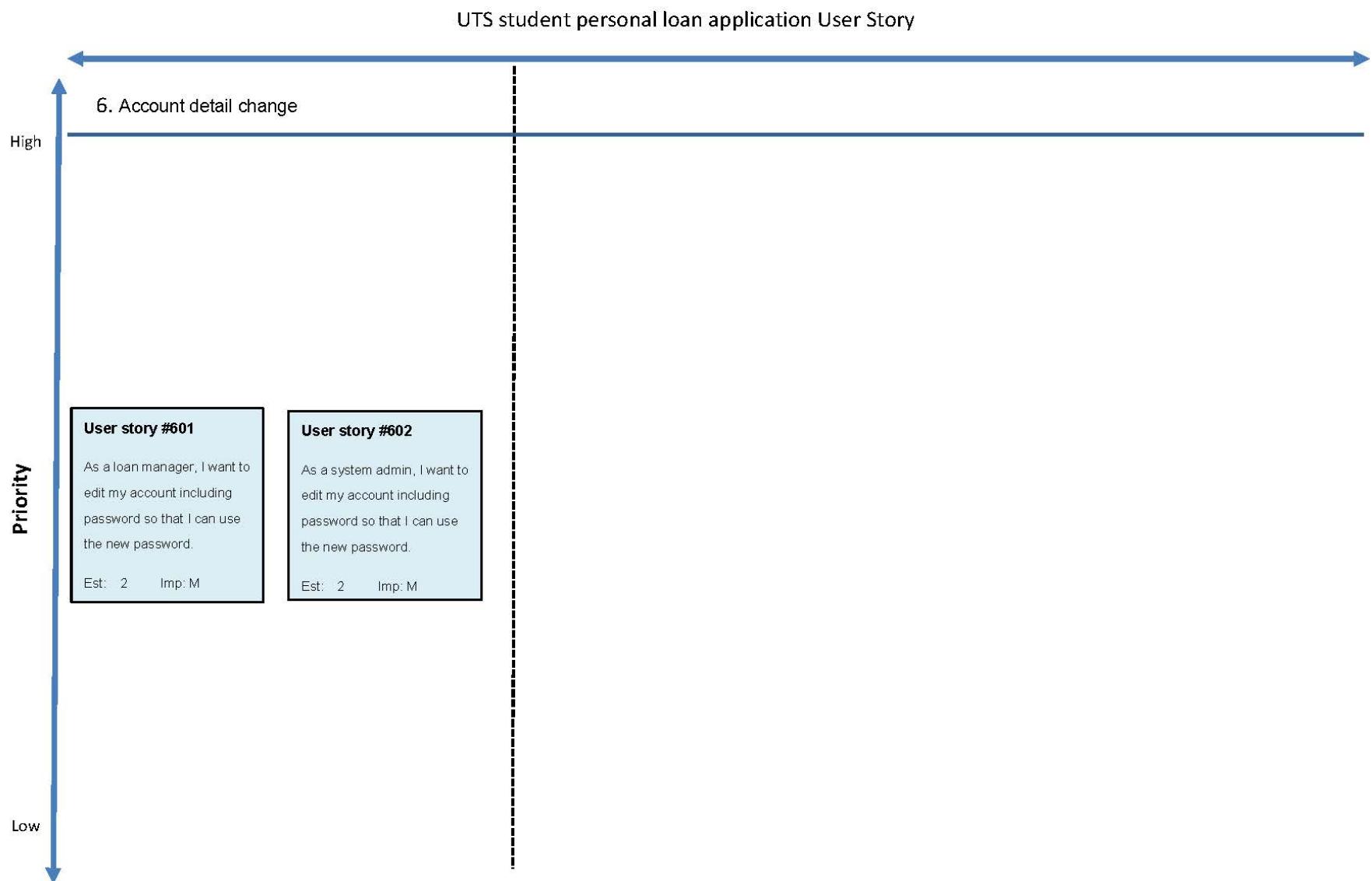
Release 2 Plan will run from 17/09/2018 to 22/10/2018.

week	Iteration	Start Date	End Date	Release
Week 3	Iteration 0	Monday,06/08/2018	Sunday,12/08/2018	1
Week 4	Iteration 1	Monday,13/08/2018	Sunday,19/08/2018	1
Week 5	Iteration 2	Monday,20/08/2018	Sunday,26/08/2018	1
Week 6	Iteration 3	Monday,27/08/2018	Sunday,02/09/2018	1
Week 7	Iteration 4	Monday,03/09/2018	Sunday,09/09/2018	1
week	Iteration	Start Date	End Date	Release
Week 8	Iteration 1	Monday,17/09/2018	Sunday,23/09/2018	2
Week 9	Iteration 2	Monday,24/09/2018	Sunday,30/09/2018	2
Week 10	Iteration 3	Monday,01/10/2018	Sunday,07/10/2018	2
Week 11	Iteration 4	Monday,08/10/2018	Sunday,14/10/2018	2
Week 12	Iteration 5	Monday,15/10/2018	Sunday,22/10/2018	2

3.1.1 User Story Map







3.1.2 Release 1 Schedule

Release 1 Schedual				
Activity	Duration	Start Date	End Date	Team Member
Documentation				
Create the draft document	1 Hour	Monday,06/08/2018	Monday,06/08/2018	All
Write the document individual logs book writing	3 Weeks	Monday,13/08/2018	Friday,31/08/2018	All
Review and revise project document	2 Days	Wednesday,29/08/2018	Friday,31/08/2018	All
Design				
Create use story and map	2 Days	Monday,13/08/2018	Tusday,14/08/2018	All
Create Use Cases Narratives	2 Days	Wednesday,15/08/2018	Thursday,16/08/2018	All
Create Agile Requirements and non-functional requirement	2 Days	Friday,17/08/2018	Sunday,19/08/2018	All
Create System Architecture diagram	2 Days	Monday,20/08/2018	Wednesday,22/08/2018	All
Create data relate diagram and dictionary	2 Days	Thursday,23/08/2018	Saturday,25/08/2018	All
Calculate the cost	2 Days	Sunday,26/08/2018	Tusday,28/08/2018	All
Implementation				
Create the basic structure and function of the system	3 Weeks	Monday,13/08/2018	Friday,31/08/2018	All
Testing				
Test the system	2 Days	Saturday, 01/09/2018	Sunday,02/09/2018	All
Deployment				
Present the document and the system to the tutor	1 Hour	Wednesday,05/09/2018	Wednesday,05/09/2018	All

3.2 Project Cost Estimates

This project consists of two releases. There are four iterations in release1 with an additional iteration 0 and release two is made up of 5 iterations. According to each person's Timesheet (Shown in 3.3), the form of the total cost is given below.

Day	Week 3	Week 4	Week 5	Week 6	Week 7
Monday	0	9	14	18	7
Tuesday	0	15	17	15	8
Wednesday	6	23	25	15	6
Thursday	0	8	23	19	0
Friday	0	8	15	11	0
Saturday	0	4	10	2	0
Sunday	0	0	0	0	0
Total	\$ 480.00	\$ 5,360.00	\$ 8,320.00	\$ 6,400.00	\$ 1,680.00

Release 1

Cost of Iteration 0 = (Total Working hours) * (Rate)

$$= 6 * 80$$

=\$480.00

Cost of Iteration 1 = (Total Working hours) * (Rate)

$$= 67 * 80$$

=\$5,360.00

Cost of Iteration 2 = (Total Working hours) * (Rate)

$$= 104 * 80$$

=\$8,320.00

Cost of Iteration 3 = (Total Working hours) * (Rate)

$$= 80 * 80$$

=\$6,400.00

Cost of Iteration 4 = (Total Working hours) * (Rate)

$$= 21 * 80$$

=\$1,680.00

Cost of Release = Cost of (Iteration 0+ Iteration 1+ Iteration 2+ Iteration 3+ Iteration 4)
 = 480 + 5360 + 8320 + 6400 + 1680
 =\$22,240.00

3.3 Project Timesheet

Student Name:	Yunhan Zhan					
Approving Manager/ Lead:	Tong Lei					
Project:	UTS Student Personal Loan Application System					
Subject:	Software Engineering Practice					
Day	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Monday			1	2	1	4.00
Tuesday		3	2	4	1	10.00
Wednesday	1	4	4	3	1	13.00
Thursday		2	5	5		12.00
Friday		1	3	1		5.00
Saturday			2	2		4.00
Sunday						
Total	1.00	10.00	17.00	17.00	3.00	48.00
Rate	\$80	\$80.00	\$80	\$80.00	\$80	
Total	\$80.00	\$800.00	\$1,360.00	\$1,360.00	\$240.00	\$3,840.00
Team Member Signature: _____ Date: Yunhan Zhan _____						
Team Lead/ Manager Signature: _____ Date: Tong Lei _____						

Student Name:	Xiaoyang Wang
Approving Manager/ Lead:	Tong Lei
Project:	UTS Student Personal Loan Application System
Subject:	Software Engineering Practice

Day	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Monday			2	3	1	6.00
Tuesday		4	3	2	1	10.00
Wednesday	1	5	6	3	1	16.00
Thursday		1	2	4		7.00
Friday		2	2	2		6.00
Saturday			1			1.00
Sunday						
Total	1.00	12.00	16.00	14.00	3.00	46.00
Rate	\$80	\$ 80.00	\$80	\$ 80.00	\$80	
Total	\$ 80.00	\$ 960.00	\$ 1,280.00	\$ 1,120.00	\$ 240.00	\$ 3,680.00

Team Member Signature: Date:

Xiaoyang Wang

Team Lead/ Manager Signature: Date:

Tong Lei

Student Name:	Wenbo Qi
Approving Manager/ Lead:	Tong Lei
Project:	UTS Student Personal Loan Application System
Subject:	Software Engineering Practice

Day	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Monday			2	3	1	6.00
Tuesday		3	3	1	1	8.00
Wednesday	1	4	4	2	1	12.00
Thursday		3	5	4		12.00
Friday		1	1	3		5.00
Saturday			1			1.00
Sunday						
Total	1.00	11.00	16.00	13.00	3.00	44.00
Rate	\$ 80	\$ 80.00	\$ 80	\$ 80.00	\$ 80	
Total	\$ 80.00	\$ 880.00	\$ 1,280.00	\$ 1,040.00	\$ 240.00	\$ 3,520.00

Team Member Signature: Date:

Wenbo Qi

Team Lead/ Manager Signature: Date:

Tong Lei

Student Name:	Tong Lei
Approving Manager/ Lead:	Tong Lei
Project:	UTS Student Personal Loan Application System
Subject:	Software Engineering Practice

Day	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Monday		5	2	3	2	12.00
Tuesday		2	3	4	3	12.00
Wednesday	1	3	6	2	1	13.00
Thursday			1	2		3.00
Friday			3			3.00
Saturday		4	2			6.00
Sunday						
Total	1.00	14.00	17.00	11.00	6.00	49.00
Rate	\$80	\$80.00	\$80	\$80.00	\$80	
Total	\$80.00	\$1,120.00	\$1,360.00	\$880.00	\$480.00	\$3,920.00

Team Member Signature: _____ Date: _____

Team Lead/ Manager Signature: _____ Date: _____

Tong Lei

Student Name:	Jianshun Jiang
Approving Manager/ Lead:	Tong Lei
Project:	UTS Student Personal Loan Application System
Subject:	Software Engineering Practice

Day	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Monday		4	3	3	1	11.00
Tuesday		1	4	2	1	8.00
Wednesday	1	2	3	2	1	9.00
Thursday			6	3		9.00
Friday		3	2	2		7.00
Saturday			1			1.00
Sunday						
Total	1.00	10.00	19.00	12.00	3.00	45.00
Rate	\$80	\$80.00	\$80	\$80.00	\$80	
Total	\$80.00	\$800.00	\$1,520.00	\$960.00	\$240.00	\$3,600.00

Team Member Signature: Date:

Jianshun Jiang _____

Team Lead/ Manager Signature: Date:

Tong Lei _____

Student Name:	Shan Lu
Approving Manager/ Lead:	Tong Lei
Project:	UTS Student Personal Loan Application System
Subject:	Software Engineering Practice

Day	Week 3	Week 4	Week 5	Week 6	Week 7	Total
Monday			4	4	1	9.00
Tuesday		2	2	2	1	7.00
Wednesday	1	5	2	3	1	12.00
Thursday		2	4	1		7.00
Friday		1	4	3		8.00
Saturday			3			3.00
Sunday						
Total	1.00	10.00	19.00	13.00	3.00	46.00
Rate	\$80	\$80.00	\$80	\$80.00	\$80	
Total	\$80.00	\$800.00	\$1,520.00	\$1,040.00	\$240.00	\$3,680.00

Team Member Signature: _____ Date: _____

Shan Lu

Team Lead/ Manager Signature: _____ Date: _____

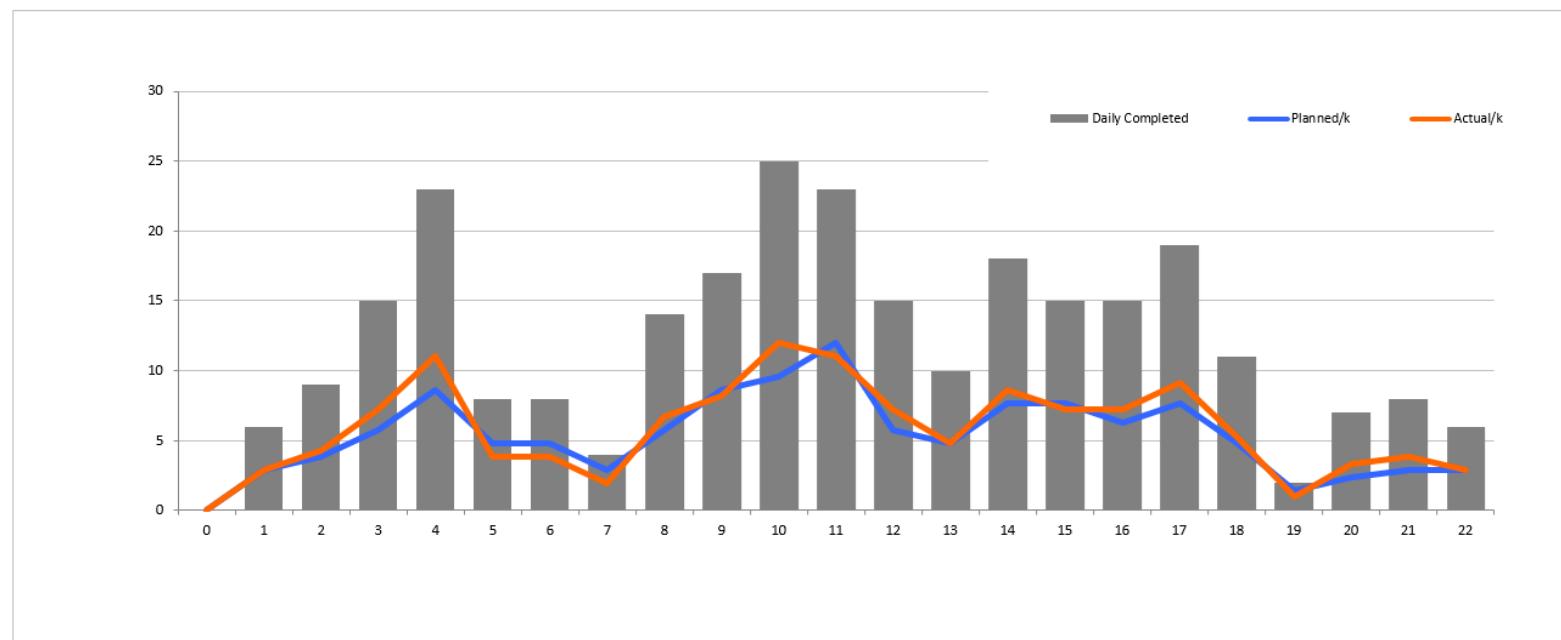
Tong Lei

3.4 Burn down chart

This chart is used to describe the relationship between time and working balance during Week3 – Week7. Based on statistics on each person's working hours and work efficiency, the burndown chart is shown below. The working balance is given in units of one thousand.

Burn down chart

Day	Burned down		Balance		Daily Completed
	Planned	Actual	Planned/k	Actual/k	
0	0	0	0	0	0
1	6	6	2.88	2.88	6
2	8	9	3.84	4.32	9
3	12	15	5.76	7.2	15
4	18	23	8.64	11.04	23
5	10	8	4.8	3.84	8
6	10	8	4.8	3.84	8
7	6	4	2.88	1.92	4
8	12	14	5.76	6.72	14
9	18	17	8.64	8.16	17
10	20	25	9.6	12	25
11	25	23	12	11.04	23
12	12	15	5.76	7.2	15
13	10	10	4.8	4.8	10
14	16	18	7.68	8.64	18
15	16	15	7.68	7.2	15
16	13	15	6.24	7.2	15
17	16	19	7.68	9.12	19
18	10	11	4.8	5.28	11
19	3	2	1.44	0.96	2
20	5	7	2.4	3.36	7
21	6	8	2.88	3.84	8
22	6	6	2.88	2.88	6



4. Agile Architecture

4.1 Data Dictionary

Ref.	Data Element	Format	Length	Description
01 Student				
DE-1001	StudentID	Integer	10	Primary Key, Mandatory, E.g.12345678
DE-1002	Password	Varchar	50	Mandatory should be consist of number, alphabet, and symbols; Should be encrypted by MD5; E.g. '1234@iiiii.'
DE-1003	FirstName	Varchar	10	Fist name of the student, consisting of alphabet E.g. 'Ayman'
DE-1004	LastName	Varchar	10	Last name of the student, consisting of alphabet E.g. 'Smith'
DE - 1005	Faculty	Varchar	4	Faculty acronyms(e.g. FEIT,FASS,DAB)
DE-1007	Course	Varchar	6	Course code(e.g. C10143)
DE-1008	Email	Varchar	100	Student email address
DE-1009	Mobile	Varchar	20	Student mobile number (e.g. 0400000000)
DE-1010	DOB	Date	10	Student date of birth (e.g. dd/mm/yyyy)
DE-1011	Gender	Varchar	6	Student gender (e.g. Male, female,others)
DE-1012	StartYear	Varchar	4	Year(e.g. yyyy)
DE-1014	Nationality	Varchar	20	Student nationality(e.g.Australia, China, England)
DE-1015	BankAccount	Varchar	50	Student band account detail (e.g. name&bsb&account number Format: xxxxxxxx&xxx-xxx&xxxxxxxxxx)
02 Loan Manager				
DE-2001	ManagerID	Integer	10	Primary key, auto increment, e.g.12
DE-2002	FirstName	Varchar	10	Fist name of the staff, consisting of alphabet E.g. 'Ayman'
DE-2003	LastName	Varchar	10	Last name of the staff, consisting of alphabet

				E.g. 'Smith'
DE-2004	Email	Varchar	100	Staff email address
DE-2005	Mobile	Varchar	20	Staff mobile number (e.g. 0400000000)
DE-2006	Password	Varchar	50	Mandatory should be consist of number, alphabet, and symbols; Should be encrypted by MD5; E.g. '1234@iiii.'
DE-2007	AdminId	Integer	10	Foreign key. The admin that creates this account.
DE-2008	Delete	Boolean	1	The delete flag indicates whether this account is deleted or not. This is to preserve the historical information for a staff account.

03 Application

DE-3001	Application ID	Integer	10	Primary key, Mandatory field. (e.g.000000001)
DE-3003	Content	Varchar	5000	Application content
DE-3004	StudentID	Integer	8	Foreign key, student id.
DE-3005	ManagerID	Integer	8	A foreign key represents the staff that is responsible for this application
DE-3006	Status	varchar	10	The status of the application, 'Submitted,' 'Processed,' 'Approved,' 'Disapproved.'
DE-3007	Submitted Date	Date	10	The application submit date (e.g. dd/mm/yyyy)
DE-3008	ResultDate	Date	10	The application result date (e.g. dd/mm/yyyy)

04 ApplicationDraft

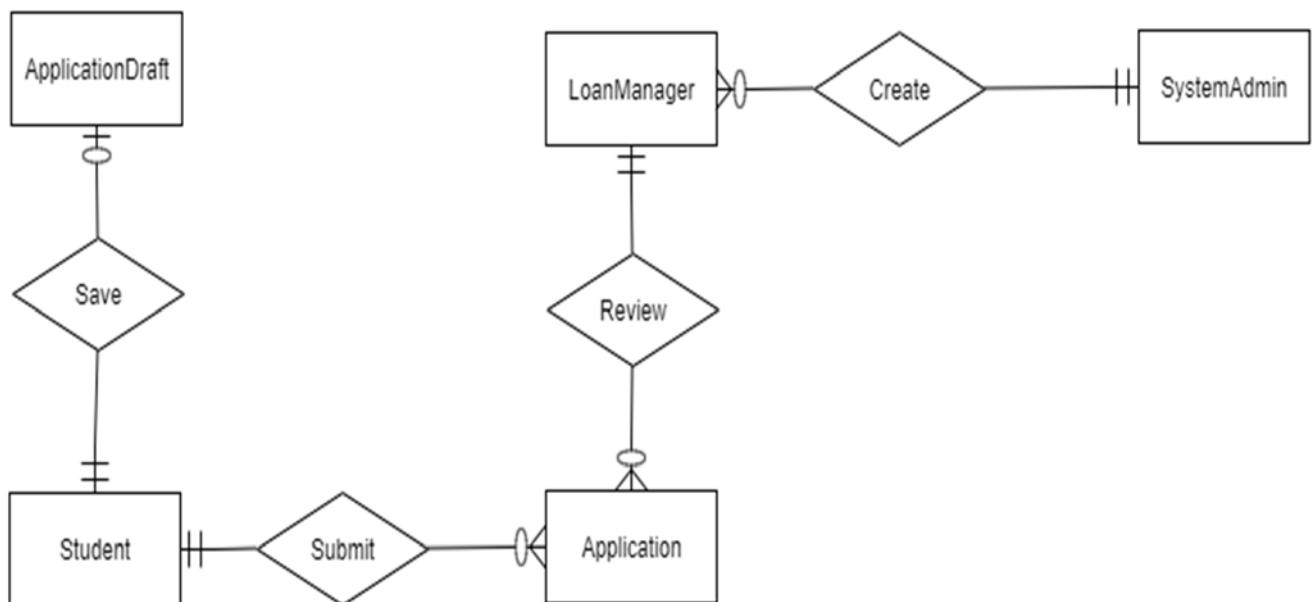
DE-4001	DraftID	Integer	9	Primary key, Mandatory field. (e.g.000000001)
DE-4002	Content	Varchar	5000	Application content
DE-4004	StudentID	Integer	8	A foreign key, the student who creates this draft
DE-4005	LastEditDate	Date	10	The latest date the draft is edited(e.g. dd/mm/yyyy)

05 SystemAdministrator

DE-5001	AdminId	Integer	8	Primary Key, Mandatory, E.g.12345678
---------	---------	---------	---	--------------------------------------

DE-5002	Password	Varchar	50	Mandatory should be consist of number, alphabet, and symbols; Should be encrypted by MD5; E.g. '1234@iiiii.'
DE-5003	Username	Varchar	20	Mandatory can be consist of number, alphabet, and symbols; E.g. '1234@iiiii.'
06 Attachment				
DE-6001	Attachment ID	Integer	20	Primary Key, Mandatory (eg.000000000000000000000001)
DE-6002	DraftID	Integer	9	Foreign key
DE-6003	Application ID	Integer	9	Foreign key
DE-6004	UploadDate	Date	20	The date that this file is uploaded
DE-6005	Path	Varchar	200	The path of the attachment file.

4.2.Data Object Model Diagram



4.3. Application Architecture Diagram

Our application uses a SpringMVC framework and hibernate.

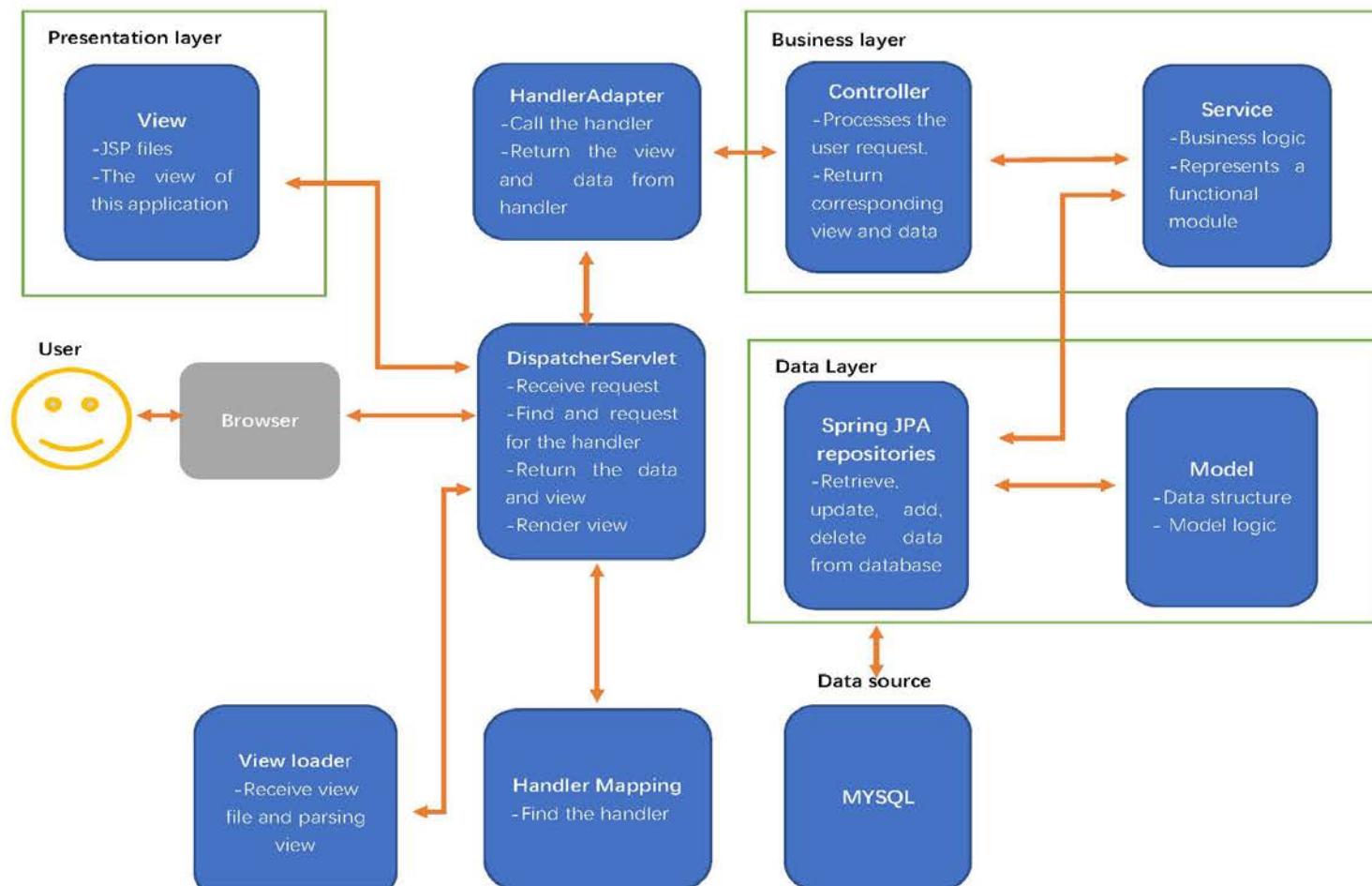
Front-end includes JSP files within HTML and simple javascript.

In this framework, the dispatcher servlet is used to handle the requests. It finds the proper handler for requests from handler mapping and calls the handler using handler adapter.

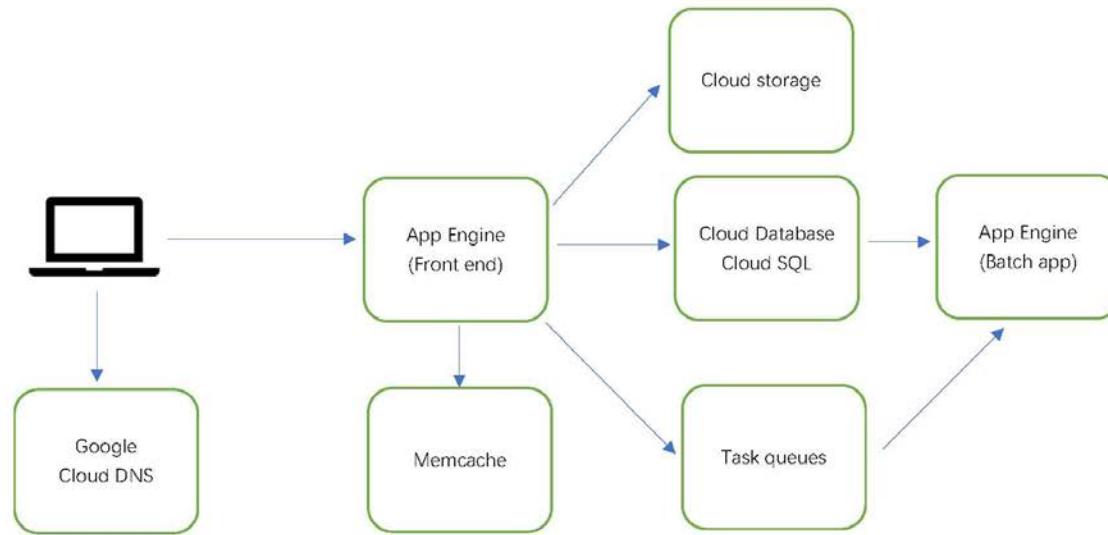
We implement controllers as the request handlers. Controllers process the user request, calling the corresponding service to deal with the data requests and returns the required data and view to dispatcher servelet via handler adapter. After the data and view are sent back to the dispatcher, it uses ViewLoader to render the view file and presents to the user.

Services here represent functional modules. Each service handles a specific collection of user services by calling different repositories.

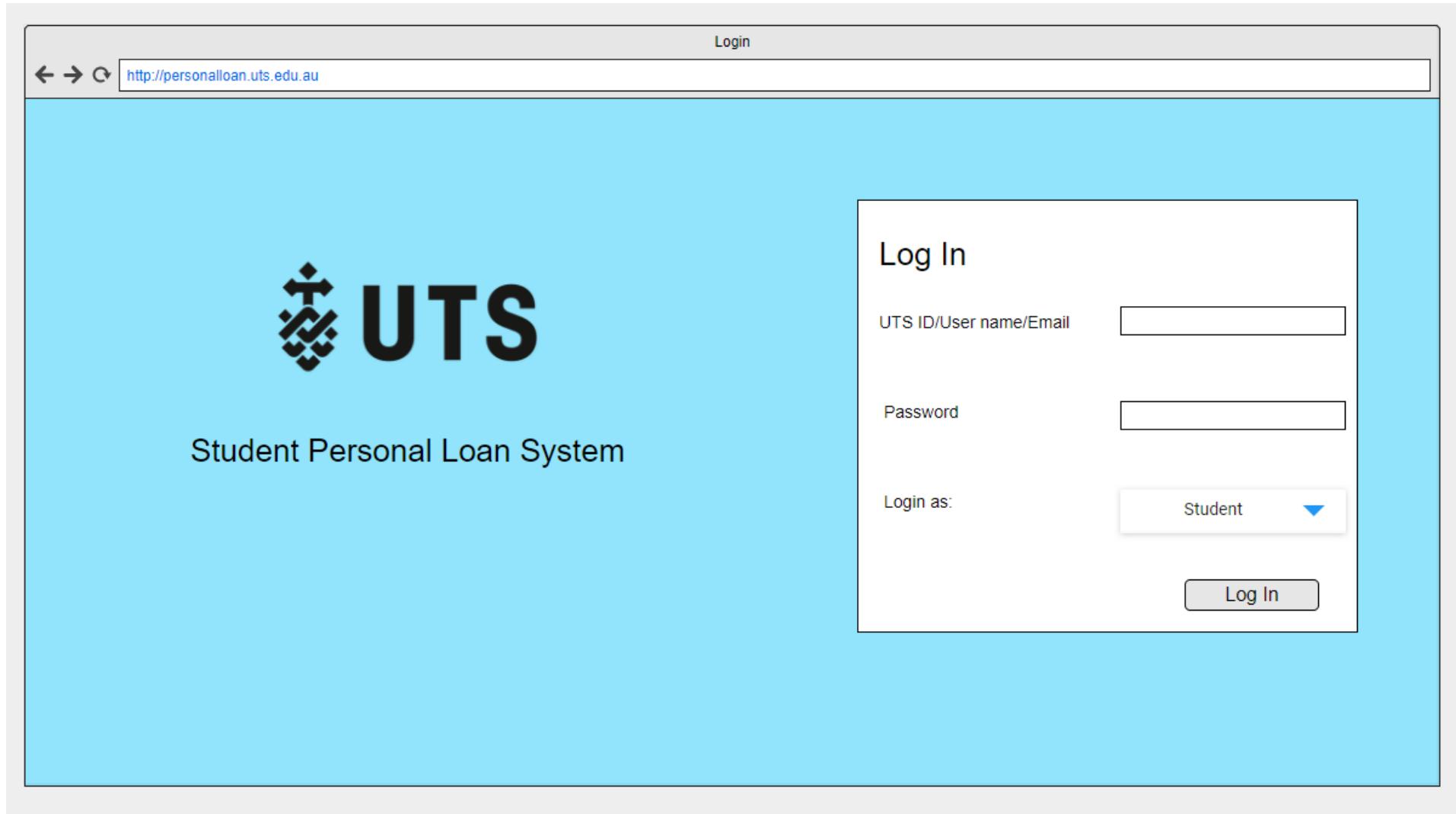
Repositories are used for database operations, which all extended Spring JPA to reduce the work of writing SQL statements. The model, after all, represents the model object in this web application.



4.4 Deployment Architecture Diagram



4.5 Website prototype



The image shows a website prototype for the "Student Personal Loan System". The page has a light blue background. At the top, there is a header bar with a back, forward, and refresh button, followed by the URL <http://personalloan.uts.edu.au>. Below the header, the UTS logo (a stylized diamond shape made of dots) is displayed next to the text "UTS". Below the logo, the text "Student Personal Loan System" is centered. On the right side of the page, there is a login form titled "Log In". The form contains three input fields: "UTS ID/User name/Email", "Password", and "Login as:". The "Login as:" field has a dropdown menu set to "Student". Below the form is a "Log In" button.

Login

<http://personalloan.uts.edu.au>

UTS

Student Personal Loan System

Log In

UTS ID/User name/Email

Password

Login as:

Student ▾

Log In

Login

← → ⌂ <http://personalloan.uts.edu.au>



Student Personal Loan System

Log In

UTS ID/User name/Email

Password

Login as:

- Student
- Student**
- Loan Manager
- Administrator

Application

http://personalloan.uts.edu.au/application

X  UTS Student Personal Loan System

Welcome Jianshun 

 Application

 History

 Profile

Application

 Create  Delete

Application	Date	Status
No Application		

Application

← → ⌂ <http://personalloan.uts.edu.au/application>

☰ Menu **UTS** Student Personal Loan System Welcome Jianshun ➔

Application

 Create  Delete

Application	Date	Status
No Application		

Application

http://personalloan.uts.edu.au/application

X  UTS Student Personal Loan System

Welcome Jianshun 

 Application  History  Profile

Application

 Create  Delete

	Application	Date	Status	
	Personal Loan	30/08/2018	Processing	View
	Personal Loan	01/08/2018	Draft	View

Application

http://personalloan.uts.edu.au/application

Menu **UTS** Student Personal Loan System Welcome Jianshun 

Application

 Create  Delete

Application	Date	Status	
Personal Loan	30/08/2018	Processing	View
Personal Loan	01/08/2018	Draft	View



☰ Menu

UTS Student Personal Loan System

Welcome Jianshun



Application

1



2



3

Detail



File



Submit



Save

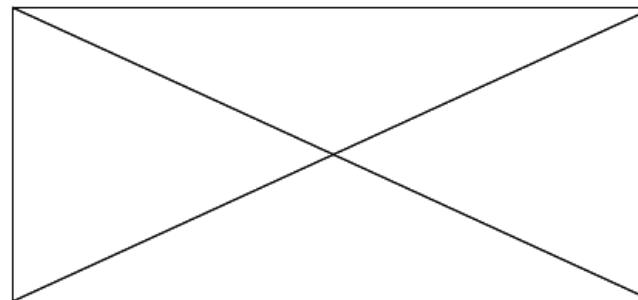


Check

Detail

Detail

Detail



New Application - Step2

<http://personalloan.uts.edu.au/application/newapplication/step2>

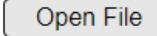
Menu  Student Personal Loan System Welcome Jianshun 

Application

1  2  3

Detail File Submit

 Save  Check

 Upload File 

Drag to here to upload

Require Document:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

 Back

New Application - Step3

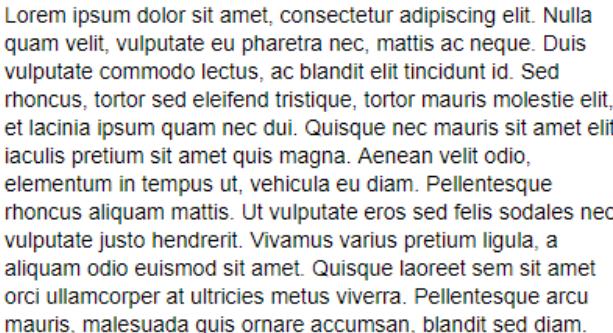
<http://personalloan.uts.edu.au/application/newapplication/step3>

Menu  UTS Student Personal Loan System Welcome Jianshun 

Application

1  2  3

Detail File Submit 



I agree

 Back  Submit



☰ Menu

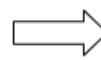
UTS Student Personal Loan System

Welcome Jianshun



Application

1



2

File

Submit

Check

Upload File

Open File

Drag to here to upload

Require Document:

- 1.
- 2.
- 3.
- 4.
- 5.
- 6.
- 7.
- 8.

New Application - Step3

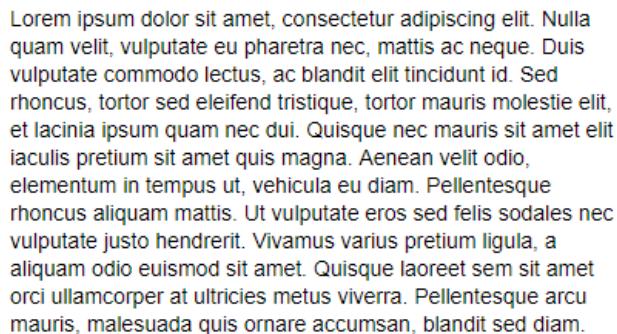
<http://personalloan.uts.edu.au/application/newapplication/step3>

☰ Menu  UTS Student Personal Loan System Welcome Jianshun 

Application

1  2

File Submit


Lorem ipsum dolor sit amet, consectetur adipiscing elit. Nulla quam velit, vulputate eu pharetra nec, mattis ac neque. Duis vulputate commodo lectus, ac blandit elit tincidunt id. Sed rhoncus, tortor sed eleifend tristique, tortor mauris molestie elit, et lacinia ipsum quam nec dui. Quisque nec mauris sit amet elit iaculis pretium sit amet quis magna. Aenean velit odio, elementum in tempus ut, vehicula eu diam. Pellentesque rhoncus aliquam mattis. Ut vulputate eros sed felis sodales nec vulputate justo hendrerit. Vivamus varius pretium ligula, a aliquam odio euismod sit amet. Quisque laoreet sem sit amet orci ullamcorper at ultricies metus viverra. Pellentesque arcu mauris, malesuada quis ornare accumsan, blandit sed diam.

I agree

 Back  Submit

History

<http://personalloan.uts.edu.au/history>

X UTS Student Personal Loan System

Welcome Jianshun 

-  Application
-  History
-  Profile

History

Keyword:

Date: 4/22/2012 

 Search

History

<http://personalloan.uts.edu.au/history>

X UTS Student Personal Loan System

Welcome Jianshun 

-  Application
-  History
-  Profile

History

 Back

Application	Date	Status	
Personal Loan	20/08/2018	Approve	View
Personal Loan	15/08/2018	Decline	View

Profile

http://personalloan.uts.edu.au/profile

X UTS Student Personal Loan System

Welcome Jianshun 

-  Application
-  History
-  Profile

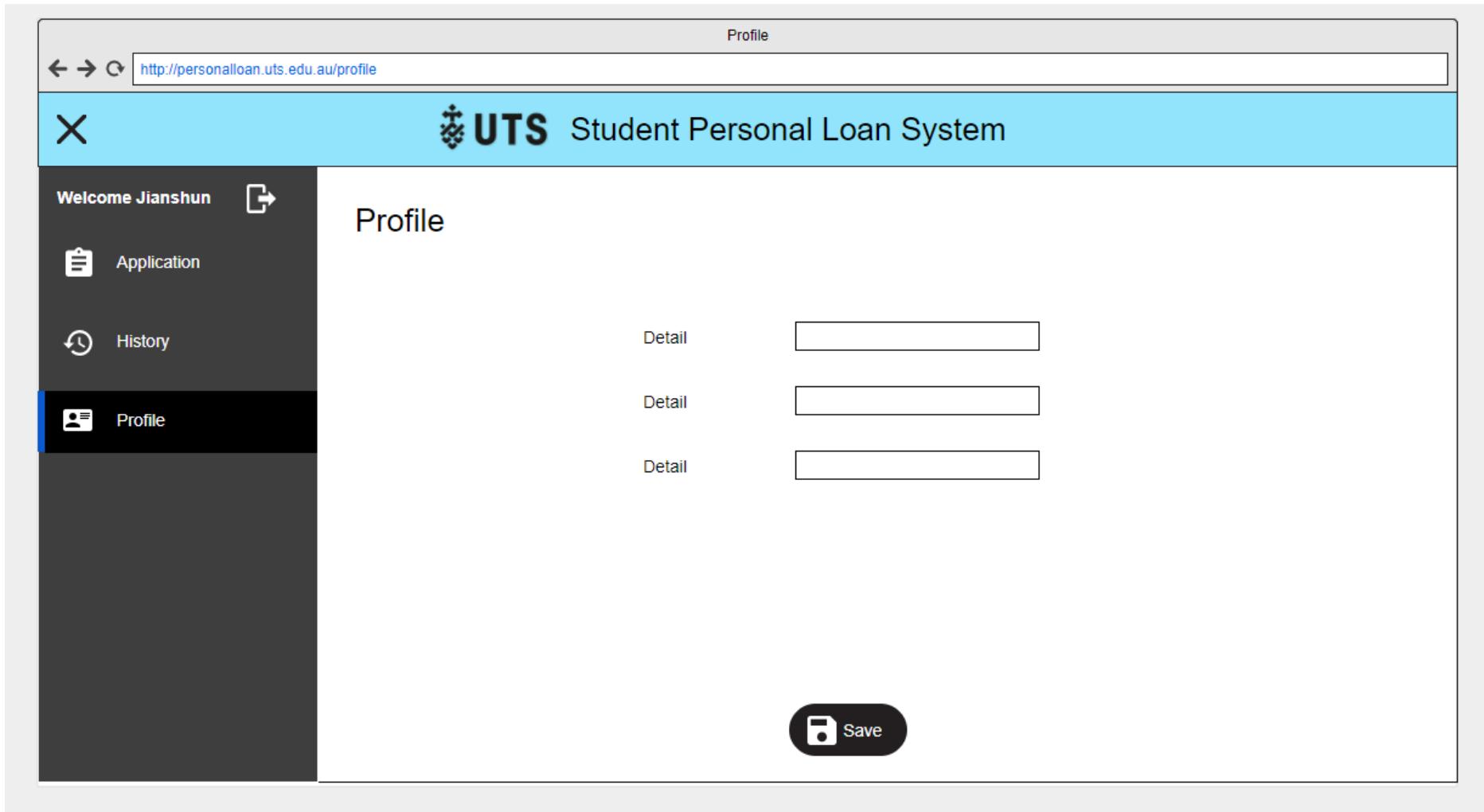
Profile

Detail

Detail

Detail

 Save



Application

← → ↻ <http://personalloan.uts.edu.au/application>

X  UTS Student Personal Loan System

Welcome Tom 

 Application

 Account

Application

Application Status:

Application	Name	Date	Status
No Application			

Application

http://personalloan.uts.edu.au/application

X  UTS Student Personal Loan System

Welcome Tom 

 Application

 Account

Application

Application Status:

Application	Name	Date	Status	
Personal Loan	Ben Wu	30/08/2018	Processing	View
Personal Loan	Laith Malone	30/08/2018	More Information	View
Personal Loan	Sakina Choi	28/08/2018	Processing	View
Personal Loan	Jannat Avalos	28/08/2018	Decline	View
Personal Loan	Emyr Bains	28/08/2018	Approve	View

Application

← → ↺ <http://personalloan.uts.edu.au/application>

X UTS Student Personal Loan System

Welcome Tom

Application

Account

Application

Application Status: Processing ▲

Application	Name	Date
Personal Loan	Ben Wu	30/08/2018
Personal Loan	Sakina Choi	28/08/2018

Processing

More Information

Approve

Decline

The screenshot shows a web-based application interface for managing student personal loans. On the left, there's a sidebar with 'Welcome Tom' and navigation links for 'Application' and 'Account'. The main content area is titled 'Application' and displays a table of two loan applications. Each application row contains the type ('Personal Loan'), name ('Ben Wu' or 'Sakina Choi'), and date ('30/08/2018' or '28/08/2018'). To the right of the table, a dropdown menu is open under 'Application Status: Processing'. The menu includes options: 'Processing' (which is highlighted in blue), 'More Information', 'Approve', and 'Decline'. Each menu item has a small 'W' icon to its right.



Welcome Tom



Application

Account

Status: Processing

Name: Ben Wu



Age: 22

Course: Bachelor of Science in Information Technology

Degree: Undergraduate

Address: 15 Broadway, Ultimo NSW 2007

License type: NSW Driver License

License Number: 12315616

Income: \$10000

Job: Part-time Job

More Detail.....

Attachments:

1. Australian driver's licence [View](#) [Download](#)2. Tax assessment notice [View](#) [Download](#)3. Citizenship certificate [View](#) [Download](#)4. Income detail [View](#) [Download](#)5. Bank Statement [View](#) [Download](#)6. Insurance documents [View](#) [Download](#)

.....

Application

http://personalloan.uts.edu.au/application/application/dadf

X UTS Student Personal Loan System

Welcome Tom 

 Application

 Account

Status: Processing

Name: Ben Wu 

Age: 22

Course: Bachelor of Science in Information Technology

Degree: Undergraduate

Address: 15 Broadway,

License type: NSW Driver L

License Number: 12315616

Income: \$10000

Job: Part-time Job

More Detail....

Attachments:

1. Australian driver's licence [View](#) [Download](#)
2. Tax assessment notice [View](#) [Download](#)
3. Citizenship certificate [View](#) [Download](#)
4. Income detail [View](#) [Download](#)
5. Bank Statement [View](#) [Download](#)
6. Insurance documents [View](#) [Download](#)

Approve this application?

CANCEL Approve

.....

More Information

← → ⌂ <http://personalloan.uts.edu.au/application/application/dadf/moreinformation>



Welcome Tom



Account

Require information list



- 1. Australian driver's licence
- 2. Tax assessment notice
- 3. Citizenship certificate
- 4. Income detail
- 5. Bank Statement
- 6. Insurance documents
- 7. XXXXX
- 8. XXXXX

Decline comment

<http://personalloan.uts.edu.au/application/application/daf/d/decline>

X  UTS Student Personal Loan System

Welcome Tom 

 Application

 Account

Decline Comment

Comment:

 Done

Comment Area

Change Password

← → ⌂ <http://personalloan.uts.edu.au/password>

X  UTS Student Personal Loan System

Welcome Tom 

 Application

 Account

Account Information

Current Password:

New Password:

Confirm Password:

 Done

Account List

<http://personalloan.uts.edu.au/accountlist>

X  UTS Student Personal Loan System

Welcome John 

 Account List

 Account

Account List

 Create  Delete

Account ID	Name	Role
No Account		

Account List

http://personalloan.uts.edu.au/accountlist

X UTS Student Personal Loan System

Welcome John

Account List

Create Delete

	Account ID	Name	Role
<input type="radio"/>	1316123	Kiya Huang	Loan Manager
<input type="radio"/>	1311234	Morris Stanton	Loan Manager
<input type="radio"/>	1342153	Mae Heaton	Loan Manager
<input type="radio"/>	6025012	Lloyd Grey	Assistance admin

Account

Create Account

<http://personalloan.uts.edu.au/createaccount>

X UTS Student Personal Loan System

Welcome John 

 Account List

 Account

Create Account

 Done

Account ID:

Name:

Password:

Role: Loan Manager Assistance admin

Account List

← → ⌂ http://personalloan.uts.edu.au/accountlist

X UTS Student Personal Loan System

Welcome John ➔

Account List

Create Delete

	Account ID	Name	Role
<input type="radio"/>	1316123	Kiya Huang	Loan Manager
<input checked="" type="radio"/>	1311234	Delete Account?	Loan Manager
<input type="radio"/>	1342153	CANCEL	Loan Manager
<input type="radio"/>	6025012	Lloyd Grey	Assistance admin

Account List

Account

Change Password

http://personalloan.uts.edu.au/password

X UTS Student Personal Loan System

Welcome John

Account List

Account

Account Information

Current Password:

New Password:

Confirm Password:

 Done

5. Test case

Test Case ID	UL_1	Test Case Description	Test the Login Functionality	
Created By	Lei	Reviewed By	Jenny	Version
User Story ID	101			
QA Tester's Log	Review and execute code comments from Lei			

Tester's Name	Jenny	Date Tested	八月 28, 2018	Test Case (Pass/Fail/Not Executed)	Pass
---------------	-------	-------------	-------------	------------------------------------	------

S #	Prerequisites:
1	Access to Chrome Browser
2	A valid user account
3	Correct password

S #	Test Data
1	Username = Due@123
2	Password= yu12@434c

Test Scenario 1-Verify on entering valid username and password, the student can login

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Navigate to https://www.utsloan.com/	Web site should open	As Expected	Pass
3	Enter valid username and password	Credential can be entered	As Expected	Pass
4	Click Submit	Student is logged in	As Expected	Pass

Post Condition Student can login the loan system successfully

Test Scenario 2-Verify on entering invalid username and password, the login stop

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Navigate to https://www.utsloan.com/	Site should open	As Expected	Pass
2	Enter invalid username and password and click 'Submit' button	Credential can be entered and show 'Invaid password and username' Message and stop login	As Expected	Pass
3	Enter invalid usenname and correct password and click 'Submit' button	Dispaly 'Invaid password and username' Message and stop login	As Expected	Pass
4	Enter valid usenname and invalid password and click 'Submit' button	Display 'Invaid password and username' Message and stop login	As Expected	Pass

Post Condition Student can't login the loan system with invalid username and password

Test Case ID	CA_1	Test Case Description	Test the Submit Functionality	
Created By	Lei	Reviewed By	Jenny	Version
User Story ID	202			
QA Tester's Log	Review and execute code comments from Lei			

Tester's Name	Jenny	Date Tested	八月 28, 2018		
---------------	-------	-------------	-------------	--	--

S #	Prerequisites:
1	Access to UTS Loan System
2	A valid user account
3	Correct password

S #	Test Data	Mandatory Data	
1	First Name / Last Name	1	First Name / Last Name
2	Email Address	2	Email Address
3	Phone Number	3	Phone Number
4	Address	4	Address
5	Student ID	5	Date of Birth
6	Date Of Birth		
7	Type of Reidence		
8	Passport		

Test Scenario 1-Enter all the correct personal information in application

Step #	Step Details	Expected Results	Actual Results
1	Login the UTS personal loan system sucessful	System display new application	As Expected
3	Fill up all the application information and click ' Check' button	System check all the required information provided by student	As Expected
4	Student click ' Submit' button to submit the system	Display digital submit receipt	As Expected
5	System received the completed aplication	Return to home page	As Expected

Post Condition Student can submit loan application to the UTS student personal loan system susscessfully

Test Scenario 2- Miss personal information in application form

Step #	Step Details	Expected Results	Actual Results	Pass / Fail / Not executed / Suspended
1	Login the UTS personal loan system	System display new application	As Expected	Pass
2	Miss filling up the information and click 'Check' button	Display 'Missing inforamtion and please check again' Message	As Expected	Pass

Post Condition Student can't submit the application form to the system.

6. Appendices – Individual Contribution Logbook

6.1 Tong Lei - 12416881

Week 2

- Meet with classmates to find a group
- Research for the project framework
 - Spring JPA

The screenshot shows a section titled "GETTING STARTED" with the heading "Accessing Data with JPA". It describes the guide as walking through the process of building an application that uses Spring Data JPA to store and retrieve data in a relational database. Below this, there's a "What you'll build" section stating that the application stores Customer POJOs in a memory-based database. A "What you'll need" section lists requirements: About 15 minutes, a favorite text editor or IDE, JDK 1.8 or later, Gradle 4+ or Maven 3.2+, and the ability to import code into IDEs like Spring Tool Suite (STS) or IntelliJ IDEA.

- Hibernate
- Spring MVC

Week 3

- Discuss with Ayman about the topics

Hi Ayman,

Does your latest email mean that we have to choose one of the ideas that you provided as our projecr idea?

Regards
Tong

[查看更多](#)

Ayman Ahmed Elgharaba...

2018/8/6

AE

收件人: might_103@yeah.net

[详细资料](#)

Hi Tong,

Yes , just pick an idea and i will ask Dr. Nabin regarding any tuning in ideas, and get back to you with announcement.

Thx,
Ayman

- Finalize the group and topic
- Set up google drive directory, start to allocate tasks



(Translation: Everyone goes to google drive to claim for the tasks that they want to do and sign their names beside the task before Friday)

- Further research of configurations of the developing environments

```
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-webmvc</artifactId>
    <version>${spring.version}</version>
</dependency>
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-context</artifactId>
    <version>${spring.version}</version>
</dependency>
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-context-support</artifactId>
    <version>${spring.version}</version>
</dependency>
<dependency>
    <groupId>org.springframework</groupId>
    <artifactId>spring-aop</artifactId>
    <version>${spring.version}</version>
</dependency>
```

- Clarify details of the project with Ayman

48440 Loan system
2018年8月9日 上午11:37

Hi Ayman,
For developing uts student loan application, are we supposed to enable the users to log in with real uts account?
If so, I think it will need us to ask for the account data from uts, or is there any other method to achieve this goal?
If not, does it means that we can just put some fake account data for testing and demo?

Week 4

- Discuss functional requirements with group members

- Added to GitHub
- Query for automatic tests from the Ayman

收件人: Ayman Ahmed Elgharaba... > 隐藏

48440 - Assignment2 Automated testing

2018年8月18日 上午11:03

Hi Ayman,

I don't quite understand the "Automated testing" part in this assignment. Does it mean that we are supposed to write any testing code to test this software? Is there any tools that you can suggest? We are going to use spring MVC for this assignment.

And as specified in the assignment 2 specification, we are only supposed to complete one release. So does that mean that we are not required to complete the whole project in the end?

- Configure the project framework

- Writing a draft of configuration steps

Steps

- Create web app from maven
- Download tomcat
- Download mysql

- Add dependencies by writing pom.xml
- Write framework configuration files
- Write some initial database data
- Connect to the database
- Test the initial program
- Fix bugs

Commits on Aug 16, 2018

Formed a very simple java webapp by maven.



Leighton070103 committed 4 days ago

Commits on Aug 19, 2018

Fixed bug that connector version does not match sql version 8.0.12

Leighton070103 committed 18 hours ago

Configured database

Leighton070103 committed 21 hours ago

Delete idea configuration files

Leighton070103 committed 21 hours ago

Update ignore file list

Leighton070103 committed 23 hours ago

Delete workspace.xml

Leighton070103 committed 23 hours ago

Delete target directory

Leighton070103 committed 23 hours ago

updated ignore file list

Leighton070103 committed 23 hours ago

MVC configured

Leighton070103 committed 23 hours ago

Configure git ignore list

Leighton070103 committed 23 hours ago

Spring framework added

Leighton070103 committed 23 hours ago

- Finish configuring database following the data dictionary.
- Finish the student log in function.

Commits on Aug 22, 2018

Fix user story map document error

Jianshun Jiang committed 10 days ago

Updated readme file

Leighton070103 committed 10 days ago

Merge remote-tracking branch 'origin/master'

Leighton070103 committed 10 days ago

Finished log in page.

Leighton070103 committed 10 days ago

Add user story map document

Jianshun Jiang committed 11 days ago

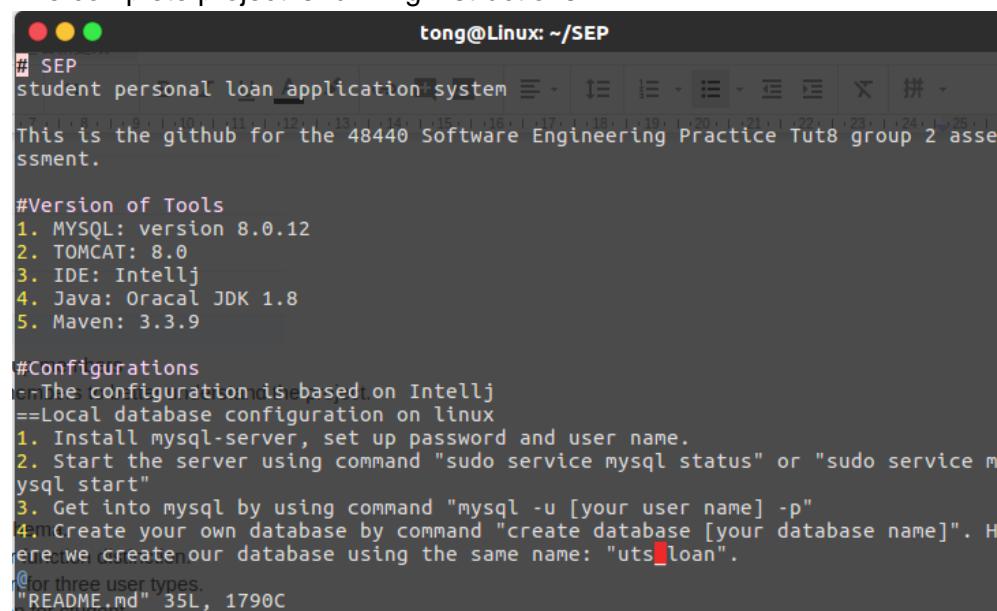
Commits on Aug 20, 2018

Added sql file

- Set up environments for all group members
- Writing instructions for group members to better understand the project.
 - SQL instructions
 - Code instructions
 - Useful tutorials

Week 6

- Complete building database schema.
- Add service layer to do a better function distinction.
- Finish login and log out function for three user types.
- Finish view applications function for the student.
- The finish adds application function for the student.
- Search for deployment methods.
- The complete project is running instructions.



```
tong@Linux: ~/SEP
# SEP
student personal loan application system
This is the github for the 48440 Software Engineering Practice Tut8 group 2 assesse.
#Version of Tools
1. MYSQL: version 8.0.12
2. TOMCAT: 8.0
3. IDE: Intellj
4. Java: Oracal JDK 1.8
5. Maven: 3.3.9

#Configurations
The configuration is based on Intellj
==Local database configuration on linux
1. Install mysql-server, set up password and user name.
2. Start the server using command "sudo service mysql status" or "sudo service mysql start"
3. Get into mysql by using command "mysql -u [your user name] -p"
4. Create your own database by command "create database [your database name]". Here we create our database using the same name: "uts_loan".
For three user types.
"README.md" 35L, 1790C
```

6.2 Yunhan Zhan - 12840221

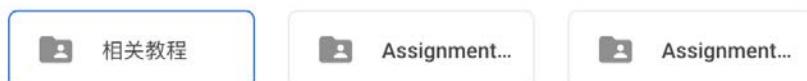
Week 2

I prepared for Quiz 0 before the workshop about Analytics, Planning, and Architecture. I formed a group with a classmate who also interested in the same topic.

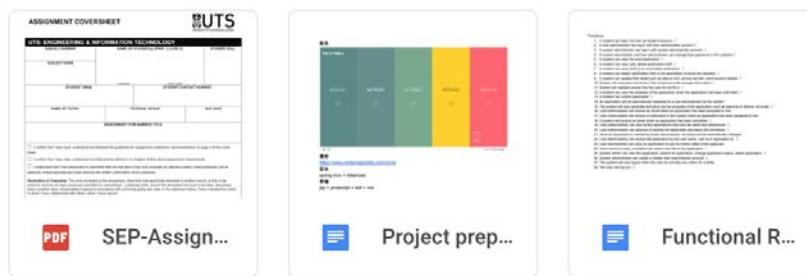
Week 3

During the workshop, we finalized the topic 'UTS Student Personal Loan System' and discuss assessment criteria based on the assignment outline with group members. Our group set up a google drive folder for this subject and finalize the assessment template. I am invited to group chat on Wechat (Chinese online chat app) to allocate the group project tasks meanwhile we discussed the technology we are supposed to use in this project.

Folders



Files



Week 4

I am not familiar with test case so that I do a lot of further research on test case including watching online videos. Joined in Github to share the idea and make a contribution to whole assessment. I made the draft of data architecture and worked on Non-Functional Requirements.

Non-Functional									
User Story #	As a/an	I want to...	So that...	Estimates	Priority	Release	Iteration	Owner	Process/Service
NFR-Security Requirements									
70 1	Student	My personal information are encrypted	I can login the system securely	3	H	R1	I1	Lei	Login
70 2	Student	My login password is masked	I can securely access the student personal loan application system	2	M	R1	I1	Lei	Login
70 3	System Admin	My personal information are encrypted	I can login the system securely	3	H	R1	I1	Lei	Login
70 4	Loan administrator	my personal information are encrypted	I can login the system securely	3	H	R1	I1	Lei	Login
70 5	Loan administrator	My login password is masked	I can securely view the student personal loan application system	2	M	R1	I1	Lei	View loan application
70 6	System Admin	My login password is masked	I can securely access the student personal loan application system	2	M	R1	I1	Lei	System management

Week 5

- Connect to the database
- Test the Login function
- Signed up and get an invite to Trello

Backlog	Blocked	In progress	Completed
Untitled Card	+ Add a card	104 As a loan manager, I want to logout the system so that no one can use my account. 106 As a system admin, I want to logout the system so that no one can use my account. 201 As a student, I want to create the application via the create button so that I can fill in a loan application form. 202 As a student, I want submit the application so that I can apply for loan application online. 204 As a student, I want receive emails when the application status changes so I can get the information immediately. 205 As a student, I want to upload attachments so that I can provide the certification files for approve. 206 As a student, I want to save the	101 As a student, I want to use my UTS account to login the system so that I can use the UTS student personal loan application system. 103 As a loan manager, I want use my manager account to login the system so that I can manage the applications assigned to me. 102 As a student, I want to logout the system so that no one can use my account. 105 As a system admin, I want to use system admin account to login the system so that I can manage the system.

Week 6

- Email Ayman about test case

Hi Jenny,

I have just upload it now

SEP_Spring2018/Templates/TestcaseTemplate.xlsx

Best Regards
Ayman

From: Yunhan Zhan
Sent: Monday, August 27, 2018 2:40:03 PM
To: Ayman Ahmed Elgharabawy
Subject: Test Case Template

Hi Ayman,
I am Jenny from your tutorial Wednesday 6pm class. I can't find test case template in your github or sample assignment. Can you please send me the template please? Thank you.

Cheers,
Jenny Zhan
12840221

- Test Login Function

UTS Loan System

Student ID:

Password:

Log in as:

- Add 'Remeber me' and patter function to login page

Add 'Remember me' Function	 d91391b	
 JennyZhan165 committed 3 hours ago		
Merge branch 'master' of https://github.com/jianshunjiang/SEP	 aad9a22	
 JennyZhan165 committed 4 hours ago		
Add Student ID pattern and change the order	 fd417d6	
 JennyZhan165 committed 4 hours ago		
Merge remote-tracking branch 'origin/master' ...	 c47cee0	
 JennyZhan165 committed 5 minutes ago		
Modify student id	 691b39a	
 JennyZhan165 committed 10 minutes ago		

6.3 Shan Lu - 12701759

Week 2

- Find the group members who are interested in the same area.
- Talk to Ayman about the details of the subject.

Week 3

- Finalize the group and topic.
- Discuss the assignment 1 with group members and allocated tasks by the team leader.

Week 4

- Surveyed about each member's weekly working time.

- Search some relevant videos about the Burndown chart.

Create a Basic Burndown Chart in Excel
Doug H • 121K views • 3 years ago
Check out my Blog: <http://exceltraining101.blogspot.com> How to create a basic burndown chart. Popular in Agile development, the ... 9:44

Create an Excel Burndown Chart in Simple Steps
Mellon Training • 10K views • 1 year ago
ONE TIME OFFER! Get the Full Udemy Course ONLY for \$10 !! Click the link: <http://bit.ly/2enNnyN> ... CC 5:44

Sprint Burndown chart - how to create Sprint Burndown chart
Accelright Limited • 44K views • 4 years ago
The Sprint Burndown is a great tool that helps the teams track their remaining work in a Sprint. It provides the Team members a ... 2:52

- Set out to create Project Timesheet.

Team Name Tree New Bee

Student Name:	Tong Lei
Approving Manager/ Lead:	Tong Lei
Project:	UTS student personal loan application
Subject:	Software Engineering Practice

Day	Week 3	Week 4	Week 5	Week 6	Week 7	Week 8	Week 9	Week 10	Week 11	Week 12	Total
Monday	3										3.00
Tuesday		2	5								7.00
Wednesday	4	3									7.00
Thursday	4		3								7.00
Friday		4									4.00
Saturday		4	2								6.00
Sunday			2								2.00
Total	11.00	13.00	12.00								38.00
Date:	\$10	\$ 80.00	\$ 80.00								
Total	\$ 880.00	\$ 1,040.00	\$ 960.00								\$ 2,880.00

Team Member Signature: _____ Date: _____

Tong Lei _____

Team Lead Manager Signature: _____ Date: _____

Tong Lei _____

Week 5

- Set out to do the Project Estimates.

Release 2 ↪

$$1) \text{ Cost of Release 2} = (\text{Cost of iteration 1}) * 5 \hookleftarrow$$

$$= \$31,200 \hookleftarrow$$

Project ↪

$$1) \text{ Cost of Project} = (\text{Cost of Release 1}) + (\text{Cost of Release 2}) \hookleftarrow$$

- Ask Ayman some questions about the burndown chart and disposal data for burn down chart.

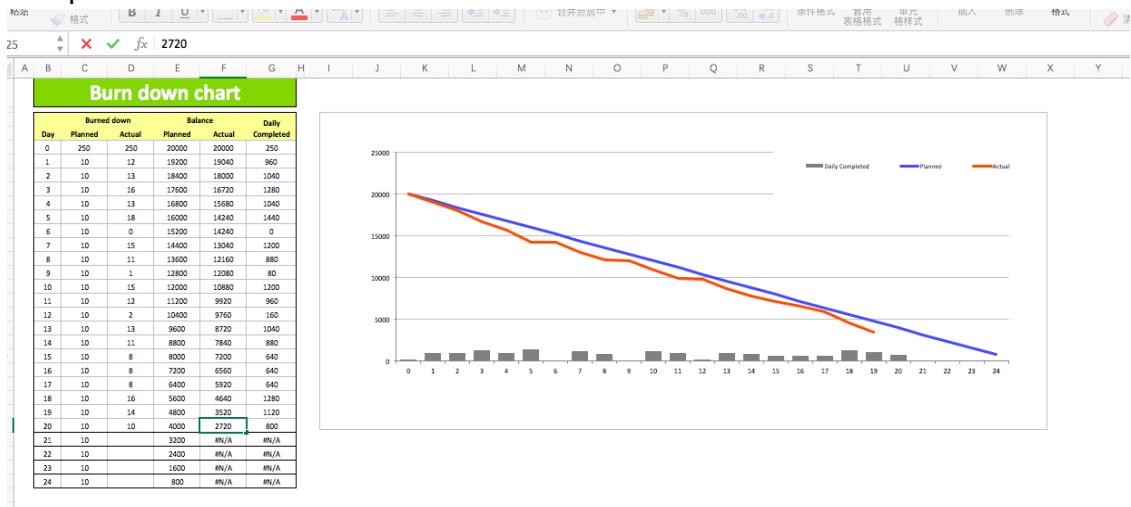
- Sign up trello, create the card wall and invite team members.

The screenshot shows a Trello board titled "SEP Group 2 (6)". It has four main columns: "Backlog", "Blocked", "In progress", and "Completed". The "In progress" column contains several cards with student requirements. A green callout box highlights the URL "https://trello.com/invite/b/H9auDwbJ/219bfaf40a247b873eedebfc0a74a16c/sep-card-wall".

Backlog	Blocked	In progress	Completed
Untitled Card	+ 添加卡片	201 As a student, I want to create the application via the create button so that I can fill in a loan application form. 202 As a student, I want submit the application so that I can apply for loan application online. 204 As a student, I want receive emails when the application status changes so I can get the information immediately. 205 As a student, I want to upload attachments so that I can provide the certification files for approve. 206 As a student, I want to save the application draft so that I can edit it later. 207 As a student, I want to delete the application draft so that I can save another new draft.	101 As a student, I want to use my UTS account to login the system so that I can use the UTS student personal loan application system. 104 As a loan manager, I want to logout the system so that no one can use my account. 103 As a loan manager, I want use my manager account to login the system so that I can manage the applications assigned to me. 106 As a system admin, I want to logout the system so that no one can use my account. 102 As a student, I want to logout the system so that no one can use my account. 105 As a system admin, I want to use system admin account to login the system so that I can manage the system.
+ 添加另一张卡片		+ 添加另一张卡片	+ 添加另一张卡片

Week 6

- Review and revise the part 3 of the assessment 1.
- Complete burndown chart.



- Prepare the presentation.

6.4 Wenbo Qi - 12665396

Week 2

- Find team members and discuss the target project with the team members.

- Briefly discuss the selected project and its feasibility with Ayman.

Week 3

- Finalize the team and topics of interest.
- Discuss the assignment of the Assessment Task 1 report, and make sure that each member is satisfied with his assigned work.

Week 4

- Start writing the Assessment Task 1 report and find relevant loan websites and application requirements for UTS and other universities.
- Add GitHub with each other.

Loans

Students seeking loans to assist with living expenses or course related costs may enquire if they are eligible for any of the following:

UTS short-term student loans

All students, domestic and international, currently enrolled in an award course at UTS, who are experiencing short-term cash flow problems may be eligible for an interest free student loan. These loans are generally capped at \$500. Applicants may apply through the Financial Assistance Service and must meet eligibility criteria. Find out more from the [short-term loans](#) page.

Government HELP loans

The Government administers five [Higher Education Loan Program \(HELP\) loan schemes](#) (opens external site) to assist local students with their tuition fees. The right loan for you will depend on your course of study, eligibility and additional factors. These loans include the HECS HELP, FEE HELP, SA HELP and the OS HELP for local university students studying both in Australia and abroad.

Government HELP loans

The Government administers five [Higher Education Loan Program \(HELP\) loan schemes](#) (opens external site) to assist local students with their tuition fees. The right loan for you will depend on your course of study, eligibility and additional factors. These loans include the HECS HELP, FEE HELP, SA HELP and the OS HELP for local university students studying both in Australia and abroad.

New Zealand citizens who are holders of SC Visas may be eligible for the HELP loan(s) from 1 January 2016. For details see:

<http://studyassist.gov.au/sites/studyassist/helpfulresources/pages/faqs-nz> (opens external site)

See also [UTS domestic fees and payment](#) for additional information.

External loans

If you wish to borrow a larger amount, you may wish to seek a loan from a financial institution. Credit Unions and banks offer loans of [various terms and types](#) (opens an external site) including possible deferred payment options.

[Mozo](#) (opens an external site) offers a comparison of loans currently advertised on the market - remember to **check the interest rates and repayment arrangements carefully**.

Week 5

- Keep writing Assessment Task 1 report.

Approved by (Customer / Program Manager):

Ayman Ahmed Elgharabawy

1.2. Project Description

The 21st century is an era in which technology and humanities are developing at a rapid pace. There is a great demand for networking and convenient lifestyles. Among the many online needs, we believe that online lending is an aspect that needs to be widely developed and applied. Our team is dedicated to researching and developing a secure web loan app that can be delivered to UTS students personally. This web-based loaning app needs to be secure, convenient, private, reasonable, universal and compatible with multiple languages. Users, mainly students, can apply for financial helps in a fast and secured way.

Planned Duration and Budget

With the team members fully agreeing, each standard iteration from 0 to 3 will last 7 to 10 days, and the timetable will be relatively adjusted when the individual iteration time changes. The team will try to ensure that all displayable applications are completed around October 10th. And use the remaining time to check and correct the program. Then, completing the centralized discussion of the team members before October 15th. In each iteration, the programming of the software and the work of different team members are supervised and completed on time. The estimated cost per person is \$80 per day and the working time is no more than 8 hours.

Current System/Process/Situation

In Australia, some students' college tuition and living expenses are paid for by part-time work or bank and school loans. In terms of the current state of UTS, three online loans are offered: short-term student loans, government help loans, and external loans. Some

Week 6

6.5 Xiaoyang Wang-99196305

Week 2

- Start learning JavaScript from Udemy
- Understand the structure of Spring MVC

Week 3

- Discuss the approaches to development
- Understand the architecture of our system development methods

Week 4

- Finished index.html page

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <meta charset="UTF-8">
    <title>UTS Student Loan System</title>
  </head>
  <body>
    <script src="//cdn.bootcss.com/bootstrap/3.3.5/js/bootstrap.min.js"></script>
    <nav id="topNav" class="navbar navbar-default navbar-fixed-top">
      <div class="container-fluid">
        <div class="navbar-header">
          <a class="navbar-brand page-scroll" href="#first">University of Technology Sydney</a>
        </div>
      </div>
    </nav>

    <header id="first">
      <div class="header-content">
        <div class="inner">
          <h1 class="cursive">UTS Student Loan System</h1>
          <h3>Apply For A Better Future</h3>
          <hr>
          <a href="login.jsp" id="login" data-toggle="collapse" class="btn btn-primary btn-xl">Login</a>
        </div>
      </div>
    </header>
  </body>
</html>
```

- Start Login.jsp page

Week 5

- Research bootstrap framework

Bootstrap 教程

Bootstrap 教程

Bootstrap 简介

Bootstrap 环境安装

Bootstrap CSS

Bootstrap CSS 概览

Bootstrap 网格系统

Bootstrap 排版

Bootstrap 代码

Bootstrap 表格

Bootstrap 表单

Bootstrap 按钮

Bootstrap 图片

Bootstrap 辅助类

Bootstrap 响应式实用工具

Bootstrap 布局组件

Bootstrap 字体图标

Bootstrap 下拉菜单

Bootstrap 按钮组

Bootstrap 按钮下拉菜单

Bootstrap 输入框组

Bootstrap 导航元素

Bootstrap 导航栏

Bootstrap 面包屑导航

Bootstrap 分页

Bootstrap 标签

Bootstrap 徽章

Bootstrap 超大屏幕

Bootstrap 页面标题

Bootstrap 简介

Bootstrap 环境安装

Bootstrap 环境安装

Bootstrap 安装是非常容易的。本章将讲解如何下载并安装 Bootstrap，讨论 Bootstrap 文件结构，并通过一个实例演示它的用法。

下载 Bootstrap

您可以从 <http://getbootstrap.com/> 上下载 Bootstrap 的最新版本。当您点击这个链接时，您将看到如下所示的网页：



您会看到两个按钮：

- **Download Bootstrap**: 下载 Bootstrap。点击该按钮，您可以下载 Bootstrap CSS、JavaScript 和字体的预编译的压缩版本。不包含文档和最初的源代码文件。
- **Download Source**: 下载源代码。点击该按钮，您可以直接从 from 上得到最新的 Bootstrap LESS 和 JavaScript 源代码。

如果您使用的是未编译的源代码，您需要编译 LESS 文件来生成可重用的 CSS 文件。对于编译 LESS 文件，Bootstrap 官方只支持 [Recess](#)，这是 Twitter 的基于 [less.js](#) 的 CSS 提示。

为了更好的了解和更方便的使用，我们将在本教程中使用 Bootstrap 的预编译版本。

由于文件是被编译过和压缩过的，在独立的功能开发中，您不必每次都包含这些独立的文件。

本教程编写时，使用的是最新版（Bootstrap 3）。

文件结构

预编译的 Bootstrap

当您下载了 Bootstrap 的已编译的版本，解压缩 ZIP 文件，您将看到下面的文件/目录结构：

```
bootstrap/
  -- css/
    -- bootstrap.css
    -- bootstrap.min.css
    -- bootstrap-theme.css
    -- bootstrap-theme.min.css
```

- Implement the bootstrap framework to front-end development
- Finish detecting user type when login, when login user is a student, check if the input is int when login user is a manager, check if the input is email format, if login user is admin, then only display username, check all input should not be empty.

```
<script language="JavaScript">
  function checkEmail( str ){
    var myReg = /^[_A-Za-z0-9]+@[_A-Za-z0-9]+\.\+[A-Za-z0-9]{2,3}\$/;
    if(myReg.test(str)) {
      return true;
    }
    else {
      alert("Please enter email address only");
      return false;
    }
  }
</script>
```

Check email format by using a regular expression

```

<script language="JavaScript">
    function checkNumber() {
        if(parseFloat(inputData).toString() == "NaN") {
            alert("Please enter numbers only");
            return false;
        }
        else {
            return true;
        }
    }
</script>

```

Check input if it's number

```

<script language="JavaScript">
    function checkInput(form) {
        if(form.username.value=="") {
            alert("User Name CANNOT be empty");
            form.username.focus();
            return false;
        }
        if(form.password.value=="") {
            alert("Password CANNOT be empty");
            form.password.focus();
            return false;
        }
        return true;
    }
</script>

```

Check input is not empty

6.6 Jianshun Jiang-12201846

Week2

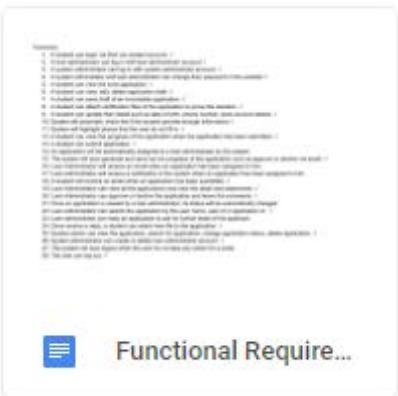
- Find a group.
- Join the WeChat group chat.
- Simply discuss the project topic with group member

Week3

- Fill my name into the group sheet.
- Discuss with group member about the which topic we should pick again.
- Join the group google drive.

Week4

- 11/08/2018 Create the basic user stories and functional requirement on Google Drive



- 15/08/2018 Create the Github and upload the file to Github. Add all group member into Github.
- 15/08/2018 Create the project in the Github and upload all the user stories. Provide the link to the tutor.
- Start writing the basic code of the web system.

Week5

- Create the second version of the user stories and write more detail in Agile Requirements Matrix.
- 21/08/2018 Create the user story map.
- Finish the use case narratives and list all the use case.
- Review the document.
- Help my group member to finish the data dictionary.
- Update the Github document.

Week6

- Start doing the web design prototype.
- Provide the feedback to Shan Lu for the project schedule and plan.
- Review the test case which done by Yunhan Zhan and provides feedback.
- 31/08/2018 Finish the web design prototype.
- Review the burndown chart done by Shan Lu and provide feedback.
- Arrange the document for submittal.
- Finish personal logs and timesheet.

