

## CS673 Software Engineering

### Team 1 : Trackr

### Meeting Minutes

All meeting minutes are kept in this single document. The latest meeting minutes should be at the beginning of the document. For example, meeting 3 minutes is placed before meeting 2 in the document. The team leader should prepare a basic agenda for the meeting and team members should rotate to be the minutes taker. Each group should have at least one meeting per week, and you may have multiple meetings if needed.

### Meeting 9

**Date and Time:** 06/14/2022 6:30 PM - 7:00 PM EST

**Place:** [Zoom link](#)

**Participants:** Jean, Xiaobing, Tim and Weijie

**Minutes taker:** Jean

**Timekeeper:** Jean

**Purpose:** Sprint Planning for Iteration 3

#### **Agenda:**

- Tasks assignments
- Iteration 3 deliverables
- Final presentation breakdown - [link to presentation document](#)
  - Sections assignments (including who is performing demo)
  - Start working on slides during the week
  - Finalize meeting time to record video
- Iteration 3 documents final review - Monday (06/20) @ 2pm
- Code freeze (06/19 starting at 9PM - project is now complete)

#### **Discussions:**

- Tasks assignments (Note: Weijie to add a small story that he has chosen to complete)

<b>Epic</b>	<b>Stories</b>	<b>Owner</b>	<b>Comments</b>
GUI	Display all the transactions across all accounts	Xiaobing	

	Change passwords	Xiaobing	
	React component unit tests with Jest	Jean	A few examples
Bugs	Prevent duplicate email address	Tim	COMPLETED (06/15/2022)
	Validate first and last name to be alphanumeric (including frontend)	Tim	COMPLETED (06/15/2022)
Refactoring	Refactor bank account entity to add list of transactions	Tim	COMPLETED (06/15/2022)
Configuration	Pipeline for running SonarQube checks for Java (optional)	Tim	COMPLETED (06/14/2022), SonarQube requires a license and has a cost associated. CodeQL (free) implemented to run security checks on code.
	Pipeline for running JS tests on PR (optional)	Jean	
	Add Spring Actuator	Tim	COMPLETED (06/15/2022)

- Iteration 3 deliverables (assign who is going to update what)
  - Readme.md (**done**)
  - Doc/CS673\_finalpresentation\_teamX - whole team
  - Doc/CS673\_SPPP\_teamX (updated) - whole team
  - Doc/CS673\_SPPP\_RiskManagment\_teamX(**done**) - Jean
  - Doc/CS673\_SDD\_teamX (dated) - **Tim (DONE)**
  - Doc/CS673\_STD\_teamX (dated) - Weijie
  - Doc/CS673\_progressreport\_teamX(**done**) - whole team
  - Doc/CS673\_meetingminutes\_teamX(**done**)
  - Code/... : runnable source code
- Final presentation breakdown - [link to presentation document](#)
  - Sections assignments
  - The final presentation should also include all your previous iteration work with the emphasis on the new work in this final iteration. Every student

should participate in the final presentation. You may include the following items in your presentation:

- **Requirement analysis:** e.g. overview of functional requirements using use case diagrams, user stories, related metrics such as total # of planned/completed user stories/points, how your project tracks requirements and handles requirement changes, nonfunctional requirements etc. **Tim - DONE**
  - **Design:** e.g. the software architecture, database design, classes, design patterns, important algorithms used. **Done**
  - **Implementation:** e.g. project structure, code examples, any special tools, experience, or techniques used, refactoring examples.
    - Project Structure - **Xiaobing**
    - Backend - **Tim**
    - Frontend - **Jean**
  - **Testing:** e.g. types of testing, test case examples, testing metrics, such as testing coverage, test pass rate, defect density or fix rate etc. **Weijie**
  - **Security:** e.g. process/techniques used if any. You can highlight some security related process/techniques when discussing other activities (requirement/design/implementation/testing), or discuss security as a separate topic. **Xiaobing**
  - **Deployment:** how the project is deployed if applies. **Jean**
  - **Project management:** role assignment as well as each individual contribution, risk management, quality management, particularly the quality metrics collected throughout the project, process improvement, iteration evolution, achievements of the project, challenges in the project, lesson learned. **Jean**
  - **Demo:** clearly demo all features implemented in the your project. If it will take too long time, you may submit a separate video later.
- Tim**
- Start working on slides during the week
  - Finalize meeting time to record video
    - ~~Tentative schedule Sunday at 7PM~~
    - ~~Jean to send invites~~
  - Iteration 3 documents final review - Monday (06/20) @ 2pm
  - Code freeze (06/19 starting at 9PM - project is now complete)

## Key Decisions

- n/a

#### Action Items:

- Investigate simple code scans with GitHub - Tim (carry over) - **done**

### Meeting 8

**Date and Time:** 06/08/2022 7:00 PM - 8:00 PM EST

**Place:** [Zoom link](#)

**Participants:** Jean, Xiaobing and Tim

**Minutes taker:** Jean

**Timekeeper:** Tim Flucker

**Purpose:** Mid Sprint Check-In and Preparing Iteration 2 deliverables.

#### Agenda:

- Tasks Reassignments (Weijie Not able to deliver his story)
- Iteration 2 deliverables
- Iteration 2 Document Final Review - Monday (06/13) @ 2pm
- **Discuss Code Freeze**

#### Discussions:

- Tasks Reassignments (Weijie Not able to deliver his story)
- Discuss deliverables for iteration 2
  - Readme.md - No significant updates needed - **done (06/11)**
  - Doc/CS673\_presentation1\_teamX && Demo - Xiaobing and Weijie
  - Doc/CS673\_SPPP\_teamX (updated) - Jean
  - Doc/CS673\_SPPP\_RiskManagment\_teamX(updated) - Jean
  - Doc/CS673\_SDD\_teamX (updated) - Tim
  - Doc/CS673\_STD\_teamX (updated) - Weijie
  - Doc/CS673\_progressreport\_teamX(updated) - Jean to create formulas
  - Doc/CS673\_meetingminutes\_teamX(updated) - **done (06/11)**
  - Code/... : runnable source code - **done (06/11)**
- Iteration 2 Document Final Review - Monday (06/13) @ 2pm
- **Discuss Code Freeze (Sunday 9pm to Tues 6am)**

## Key Decisions

- Weijie is going to scope a small non-essential feature to complete by the end of iteration 3.
- Change password and SonarQube (optional) are moved to iteration 3. They are non essential features.
- Integration tests might be considered in iteration 3 or not (optional).

## Action Items:

- Investigate simple code scans with GitHub - Tim

## Meeting 7

**Date and Time:** 06/01/2022 7:00 PM - 8:00 PM EST

**Place:** [Zoom link](#)

**Participants:** Jean, Xiaobing and Weijie

**Minutes taker:** Jean

**Timekeeper:** Jean

**Purpose:** Sprint Planning

## Agenda:

- Retro
- Carry over tasks
- Lab 3
- Tasks Review and Assignments ([link to UI Design section with mockups in SDD](#))
- Tim update

## Discussions:

- Retro
- Carry over tasks
  - Find all bank accounts
  - Find bank account by id
- Lab 3

- Tasks Review and Assignments

Epic	Stories	Owner	Comments
GUI	Display all the transactions across all accounts	Xiaobing	iteration3
	Implement user dashboard page	Jean	Jean can create page skeleton
	Implement transactions table in dashboard	Xiaobing	I think this could be good for you Xiaobing since you worked on the backend for this.
	Implement list of all accounts in dashboard page	Xiaobing	I think you can also handle that part Xiaobing
	Implement user profile page	Xiaobing Weijie Jean	I think you can handle that Weijie
	Implement all accounts page	Weijie Jean	Jean can handle this
	Implement Integration tests for UI	[Pending]	All of us will need to look into this as time permitting
User Management	Update user profile (except password)	Jean	Since you're assigned the page I think this makes sense for you Weijie. Let's discuss it.
	Change password	Jean	Iteration 3
Refactoring	Refactor backend to use package by feature	Tim	I think Tim should handle this task as we talked about before.
	Refactor API Paths to be RESTful	Tim	
	[Placeholder]	Jean	Jean to do this refactor for Lab 3.
	Refactor API Response Shapes	Tim	

	Refactor Duplicate code in BankAccountController java file	Xiaobing	Xiaobing to do this Refractor for Lab 3.
	[Placeholder for lab 3]	Weijie	
Configuration	Pipeline for running SonarQube checks for Java	[Pending]	Iteration 3. Nice to have.
	Pipeline for running JS tests on PR	Jean	
	Pipeline for running Java tests on PR	Jean	
Security	Session Management (Spring Boot and React)	Jean	Jean is going to work on this
	[Placeholder for Tim]		

Tim Update

Sorry I can't make the meeting! Here is what I have accomplished so far:

- Added stories to Pivotal Tracker. They still need individual tasks and acceptance tests. Please assign them to yourselves as necessary
- Completed the Midterm survey

Here is what I plan on doing this week:

- Refactoring code to be organized by feature
- Refactor API paths
- Improving REST APIs to prevent SQL injection
- Updating documentation as necessary

Additional story idea:

- Import transactions with CSV file
  - As a user I want to be able to import a list of transactions for a specific account so that I can rapidly import data instead of manually inputting every transaction.
  - Points: 5
  - Hours: 5 - 10

## Key Decisions

- Next meeting revisit tasks assignments based on actual velocity
- Pipeline tasks and integration tests to be assigned on Saturday

## Action Items:

- Jean to create dashboard page by end of day on June 2nd
- Should we allow duplicate email in the app?

## Meeting 6

**Date and Time:** 05/28/2022 7:30 PM - 8:00 PM EST

**Place:** [Zoom link](#)

**Participants:** Whole team 1

**Minutes taker:** Jean

**Timekeeper:** Jean

**Purpose:** Preparation for iteration 1 release

## Agenda:

- Iteration 1 release
- Iteration 1 Document Final Review - Monday (5/30) @ 2pm
- Testing
  - STD
  - Manual testing in iteration 1
- **Reminder of Code Freeze in effect from Sunday at 9PM to Tuesday at 6AM**
- Preparation for Sprint Planning for iteration 2 on Wednesday

## Discussions:

- Discuss deliverables for iteration 1
  - Readme.md - **Done**
  - Doc/CS673\_presentation1\_teamX && Demo - Tim - **Done**
  - Doc/CS673\_SPPP\_teamX (updated) - Whole team
  - Doc/CS673\_SPPP\_RiskManagement\_teamX(updated) - Jean
  - Doc/CS673\_SDD\_teamX (new) - Tim + Jean (UI Design)
  - Doc/CS673\_STD\_teamX (new) - Weijie
  - Doc/CS673\_progressreport\_teamX(updated) - **On track**

- Doc/CS673\_meetingminutes\_teamX(updated) - **Done**
- Code/... : runnable source code - **Done**

## Key Decisions

- Jest for React Unit testing
- Cypress or Selenium for UI integration testing

## Action Items:

- Complete iteration documentation deliverables.
- Code Freeze!

## Meeting 5

**Date and Time:** 05/25/2022 7:00 PM - 8:00 PM EST

**Place:** [Zoom link](#)

**Participants:** Whole team 1 + Samantha Mott (Facilitator)

**Minutes taker:** Tim Flucker

**Timekeeper:** Jean Dorancy

**Purpose:** Check-in how everyone is doing with iteration 1 deliverables

## Agenda:

- Discuss deliverables for iteration 1
- Code Freeze Sunday at 9PM
- Discuss progress on setup to build the UI
  - React tutorial
- Review Git workflow
- Discuss early PRs with small and complete changes
- Discuss time for document review (SDD, STD, SPPP)
  - Review and comments
  - Release on Monday by 2pm
- Iteration 1 manual testing (in addition to each developer features)

## Discussions:

- Discuss deliverables for iteration 1

- Readme.md - **done** (and will continue to be updated)
  - Local setup
  - Deployment
- Doc/CS673\_presentation1\_teamX && Demo - Tim
- Doc/CS673\_SPPP\_teamX (updated) - Whole team
- Doc/CS673\_SPPP\_RiskManagment\_teamX(updated) - Jean
- Doc/CS673\_SDD\_teamX (new) - Tim + Jean (UI Design)
- Doc/CS673\_STD\_teamX (new) - Weijie
- Doc/CS673\_progressreport\_teamX(updated) - **On track**
- Doc/CS673\_meetingminutes\_teamX(updated) - **On track**
- Code/... : runnable source code - **On track**

## Key Decisions

- Code Freeze will go into effect around 9pm on Sunday. This will give us time to merge branches into main and create the Release 1 in GitHub
- Iteration 1 Document Final Review - Monday (5/30) @ 2pm

## Action Items:

- Whole team will update SPPP - **On track**
- Presentation + Demo Tim - **Done**
- Schedule reminder for code freeze - **Done**

## Meeting 4

**Date and Time:** 05/22/2022 7:30 PM - 8:00 PM EST

**Place:** [Zoom link](#)

**Participants:** Whole team 1 and the professor.

**Minutes taker:** Jean

**Timekeeper:** Jean

**Purpose:** Check-in how everyone is doing with iteration 1 deliverables

## Agenda:

- Review feedback left by the professor in SPPP document
- Discuss moving up GUI (React + Webpack) to iteration 2 to make the application more user friendly
- Discuss simulating transactions

- Development deployment pipeline
- Create DB conventions

### **Discussions:**

- Discuss with the professor about keeping GUI optional and pickup in later iterations.
- Create DB conventions
  - Table names starts with tbl and continue with capitalized camel case
    - tblUser
    - tblBankAccount
    - tblTransaction
  - Column names with capitalized camel case
    - Id, FirstName, LastName, Password, Balance
  - Foreign key as capitalized camel case
    - UserId
    - BankAccountId

### **Key Decisions**

- GUI is an essential feature.

### **Action Items:**

- Tasks redistribution so we could start on GUI.

### **Meeting 3**

**Date and Time:** 05/18/2022 7:00 PM - 8:00 PM EST

**Place:** [Zoom link](#)

**Participants:** Whole team 1

**Minutes taker:** Jean

**Timekeeper:** Jean

**Purpose:** Sprint Planning for Iteration 1

### **Agenda:**

- Review feedback left by the professor in SPPP document
- Discuss epics, stories and tasks for **iteration 1**

- Discuss delete story (actually delete data, or just set a status?)
- Stories assignments
- Discuss architecture and design and assign sections in SDD
- Discuss testing and assign sections in STD
- Discuss the deliverables for **Iteration 1**
- Schedule follow-up meetings.
- Discuss any holidays / vacation days
- Happy coding!

**Discussions:**

- Discuss with the professor about keeping GUI optional and pickup in later iterations
- Discuss epics, stories and tasks
  - Create the epics (according to the project timeline)
  - Create user stories and revisit tasks breakdown
  - Stories assignments
    - Team members to own stories and/or tasks based on preference
    - Discuss overlap to ensure folks don't duplicate work

<b>Epics</b>	<b>Stories</b>	<b>Owner</b>
Deployment	Develop "Development Deployment Pipeline"	Xiaobing
	Develop "Production Deployment Pipeline"	Xiaobing
User Management	Develop "Add New User" API	Tim
Bank Account Management	Develop "Add New Bank Account" API	Tim
	Modify Bank Account API	Tim
	Delete Bank Account	Tim
	Develop "Find All Bank Accounts" APIs	Weijie
	Develop "Find By ID Bank Account" API	Weijie
Transaction Management	Create	Xiaobing
	Modify	Xiaobing

	Delete	Xiaobing
	Find all	Xiaobing
	Find by ID	Xiaobing
Setup	Setup Project with React + Webpack	Jean

- Discuss architecture and design and assign sections in SDD
  - Define project overall architecture
  - Make sure everyone understands the project
  - Everyone can run the base project created
  - Ask questions about UML and Class diagrams
- Discuss testing and assign sections in STD
- Discuss the deliverables for Iteration: Create a release for this submission, including any updated documents from the previous iteration and the source code for the submission in this iteration. Additionally, you should also submit the SDD, STD, iteration 1 presentation slides and video.
  - Readme.md (updated)
    - Local setup
    - Deployment
  - Doc/CS673\_presentation1\_teamX
  - Doc/CS673\_SPPP\_teamX (updated)
  - Doc/CS673\_SPPP\_RiskManagment\_teamX(updated)
  - Doc/CS673\_SDD\_teamX (new)
  - Doc/CS673\_STD\_teamX (new)
  - Doc/CS673\_progressreport\_teamX(updated)
  - Doc/CS673\_meetingminutes\_teamX(updated)
  - Code/... : runnable source code
  - Please also include a presentation video including a demo

### Key Decisions

- We don't delete data and set a status which will hide the record from the user.
- SDD: Tim is owning a major portion of the document.
- STD: Weijie is owning this document.

### Action Items:

- Email the professor about the feedback - **done**

- Tim to record video walkthrough of the application - **done**
- Schedule for Sunday 22nd - **done**

## **Meeting 2**

**Date and Time:** 05/15/2022 7:30 - 8:00 PM EST

**Place:** [Zoom link](#)

**Participants:** Jean, Tim, Weijie, Xiaobing and Professor Yuting

**Minutes taker:** Jean

**Timekeeper:** Jean

**Purpose:** Touch base with how the team is doing after the first week about delivery iteration 0 and discuss the software process.

### **Agenda:**

- Stakeholders feedback and contribution
- Determine team progress on delivery Iteration 0
- Discuss presentation rotation so everyone can participate.
- PR approval requires only one approval (to avoid slowing down the team)
- Discuss adopting Agile - Scrum Framework as the software process
- Discuss Progress Report Sheet

### **Discussions:**

- Stakeholders feedback and contribution
- Determine team progress on delivery Iteration 0
- Discuss presentation rotation so everyone can participate (Proposal below)
  - Iteration 0 - Jean
  - Iteration 1 - Tim
  - Iteration 2 - Xiaobing & Weijie
  - Iteration 3 - Everyone
- PR approval requires only one approval (to avoid slowing down the team)
- Discuss adopting Agile - Scrum Framework as the software process
- Discuss Progress Report Sheet

### **Key Decisions**

- One approval per PR
- Invite professor to the planning meeting
- Agile-Scrum
  - Sprint (length of iteration)
  - Sprint Retro & Planning ( per iteration)
  - Daily Standup

**Action Items:**

- Jean prepare the presentation for iteration 0
- Create Scrum meetings that we agreed on

**Meeting 1**

**Date and Time:** 05/11/2022 7:00 - 8:00 PM EST

**Place:** [Zoom link](#)

**Participants:** Jean, Xiaobing and Timothy

**Minutes taker:** Timothy

**Timekeeper:** Jean

**Purpose:** Team introductions, determine our project, divide sections of SPP, and other miscellaneous meeting items

**Agenda:**

- Intro + Timezones
- Determine our communication plan
- Project Ideas (everyone bring at least one idea)
- Git workflow and lab 1 review
- Divide and conquer for our deliverables for iteration 0 (SPPP document)
- Find a team name
- Anything else the team wants to address

**Discussions:**

- Determine our communication plan
  - We are using **Zoom** for live classrooms and are already familiar with it so it makes a natural choice for synchronous meetings.
  - Daily **Virtual Standup** Thread

- While we don't expect anyone to work on this full-time since folks have other commitments it would be nice to just get status updates.
  - **Update Template Example**
    - What did you do yesterday?
    - What will you do today?
    - What blockers stand in your way?
  - Example:
    - What did you do yesterday? **n/a**
    - What will you do today? **Looking into setting up deployment for dev**
    - What blockers stand in your way? **No blockers**
- We have a **Discord** channel for instant messaging. I would encourage everyone to install the Discord app on their phones so they are on the loop about what's happening on the channel.
- We need to **document everything** so we keep records of the work being done and how it's being done.
- We need to set up **Pivotaltracker** and create tickets and have a board which can give us a view of all of the work being done and status.
- If we run into **roadblocks**, post in the channel for help and if we can't find a resolution then we reach out to the facilitator and lastly email the professor.
- Project Ideas (everyone bring at least one idea)
  - Make a project selection
  - Get a project skeleton started
  - Decide on DevOps
    - Cloud choice
    - Build a development environment & deployment pipeline
    - Build a production environment & deployment pipeline
- Git workflow
  - Proposed workflow
    - main branch is protected and requires two reviews in order to merge changes
    - Create a development branch which we can use to stabilize changes from multiple features. It's also a protected branch and also requires two (2) reviews before merging changes.
    - Use personal branches created from the development branch for feature development, experimentation etc.
    - When merging to main or development branches we squash and merge commits so we can have a single commit with a description

of the work done. This is particularly useful if we need to revert so we can just revert a commit. Work commits in personal branches can be anything you want.

- Post reviews in the channel
- Discuss Lab 1 - Set Up Git
  - main
  - development
  - Lab 1 with empty readme.md
- Set up a deadline for everyone to complete the lab and merge to the main branch.
- Divide and conquer for our deliverables for iteration 0: Each group should work on the project documents collaboratively on google drive, and commit them on your Github repository, together with any source code if any. You shall create a release for this submission that include the following items:
  - Readme.md - **done**
    - That's part of lab1.
  - Doc/CS673\_presentation0\_teamX
    - Looks like the presentation is based on the SPPP (which makes sense)
  - Doc/CS673\_SPPP\_teamX - **done**
    - We will assign different sections depending on areas of focus
    - We will all collaborate on the document to make sure it's complete
  - Doc/CS673\_SPPP\_RiskManagment\_teamX - **done**
  - Doc/CS673\_progressreport\_teamX - **done**
    - Everyone to complete the progress report individually by creating a tab with their name
    - Team to agree on the summary for the group report
  - **Doc/CS673\_meetingminutes\_teamX - done**
- Find a team name - **done**
- Anything else the team wants to address

## Project Idea 1

### Transaction Tracker (basic CRUD API application)

Description: Similar to Mint, create an application (Web / APIs) that tracks transactions to a "bank account". Bank Account and Transaction information would be entered manually and transactions would either add / subtract from that bank account's balance.

Users will create an account and will be given a set of credentials that authorize them and allow them to access the Web interface / API interface. A new user will be given a default USER role and only be able to view information relevant to themselves. ADMIN users will be able to see records related to any user.

#### Essential Features (APIs):

- Add bank account
- edit bank account
- delete bank account
- view bank accounts
  - findAll
  - findById
- create user
- authorize API requests
- add transaction
- edit transaction
- delete transaction
- view transactions
  - findAll
  - findById

#### Additional Features (nice to have):

- web GUI
  - login page
  - landing page
    - display bank accounts
    - display transactions tied to accounts
  - add bank account page
  - add transaction page
  - edit bank account page
  - edit bank account page
- custom data displays
  - show charts of deposits into an account vs. withdrawal
  - show spending for account within a specified time frame (1 week, 1 month, 6 months)

#### Technology Stack

- Java 1.8 / Java 11
- Spring Boot Framework

- Eclipse IDE or IntelliJ or VSCode (no preference)
- Git
- Postman (API testing tool, free)
- H2 (in-memory database, for easy to access data)
- Junit5 (unit-testing)
- Swagger (API design / documentation tool, free)

### Project Idea 2

Simple app for an ad agency to manage advertising campaigns which can be found [here](#). I'm proposing the same stack as "Project 1" but for the DB we can use PostgreSQL or MySQL if we are deploying to Heroku.

### Project Idea 3

Small desktop game (2048). This is a project I did in CS-622 class which display [here](#)

### Key Decisions

- Daily Virtual Standup Thread: Post updates in the dedicated thread.
- Pull Request Thread
- Project 1 is selected
- Revisit two reviewers in order to make sure we are not slowing down development time.
- Deadline for Lab 1 is Monday 05/16/2022 at 8AM
- Recurring meeting every Wednesday 7PM - 8PM

### Action Items:

- Setup Pivotal Tracker Project and invite team members - **done**
- Create Epic **Iteration 0** in Pivotaltracker - **done**
- Schedule a check-in for Sunday @ 7:30 PM - **done**
- Upload video of the meeting to Drive - **done**
- Email professor about team 1 meeting schedule. - **done**
- Confirm with Weijie that they are able to complete their section - **done**
  - If not, team will divide their section
- Find a team name: Post in the channel. - **done**
- Create a Hello World Java application for basis of project and commit to GitHub repo