



# Quick Learning App

*FALL 2022 CAPSTONE PROJECT*

*GUIDED BY:- Prof. Henry Wong*



# Agenda:

- Feedback
- Accountabilities
- Problem statement
- Project Description
- Personas
- MVP
- Technologies
- Diagrams
- Sprint Recap
- Past sprint and current sprint comparison
- Product Backlog
- Sprint Backlog
- User stories
- Test cases
- Metrics
- Retrospective
- Stories committed for Sprint 5
- App Demo



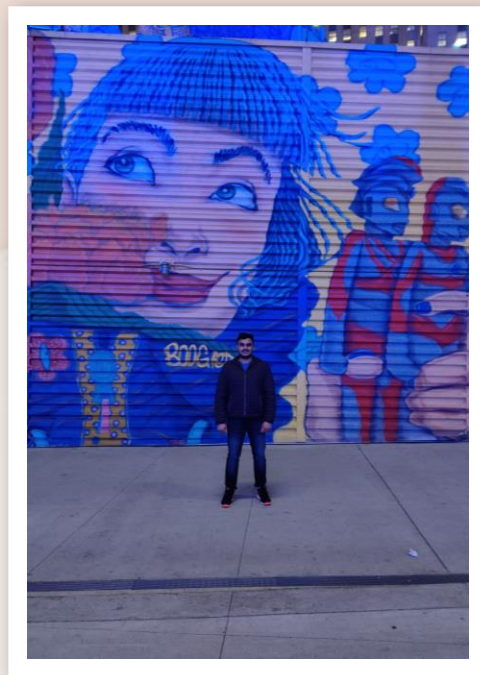


# Improvements Made:

- ✓ Need to show the presentation slides in the wiki page.
- ✓ Create Jira tickets for the improvements that we are making for current spring.
- ✓ Rename Product Development Cycle to Software Development Cycle.
- ✓ Need to add Story points in the user stories, sprint backlog, product backlog.
- ✓ Charts need to be improvised – especially Committed Vs Not Committed.
- ✓ Need to add the commitments that we made in the current sprint in the sprint backlog.



# Accountabilities:



Amit Bhayal  
Software Developer



Ankush Gurhani  
Software Developer



Genius Machado  
Software Developer



# Accountabilities:



Sharanya Dave

SDE3 / Database  
Administrator



Sravani Eata

Business  
Analyst/Software Tester



Usha Sri Tirumalasetty

SDE 2/Software Tester





# Problem Statement

How Students and Parents know the objective of the subjects taught in the class ?

How the teachers and the student communicate with each other after the school hours ?

How the Parents monitor their kids assignments and learning material ?

How can the current system notify the user about any updates just in time ?





# Project Description:

Quick Learning is a software that is designed specifically to create, distribute, and manage the delivery of educational content.

The Quick Learning application can be hosted as a stand-alone product on the company server, or it can be a cloud-based platform that is hosted by the software firm.

The goal of this project is knowledge management which means gathering, organizing, sharing and analysis of an organization's knowledge/resources.





# Personas





# Meera



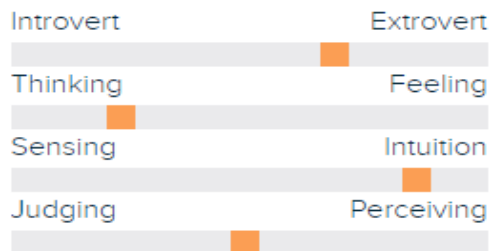
Age: 34

Work: **Admin / Principal**

Marital Status: **Married**

Location: **Rochester, New York**

## Personality



## Bio

- Being the Principal, she has the administrator privileges and rights.
- She also has the super user privileges to add or modify any of the contents on the website.

## Frustrations

- Ensures the Standard Curriculums and Protocols being strictly followed.
- Providing updated resources to all the employees working under her as per the changing market scenarios.
- Meera has to manage all the teachers.

## Interests

- Exploring new places.
- Playing Guitar.

## Goals

- To prosper in the field of online and scalable study environment.
- Making quality education available globally for inexpensive rates.



# Roger



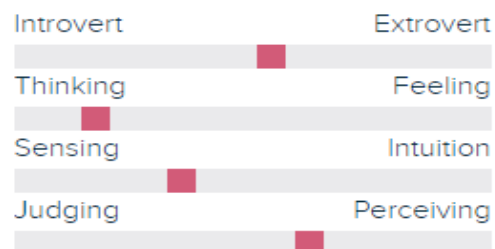
Age: 29

Work: **Teacher**

Marital Status: **Single**

Location: **Anchorage, Alaska**

## Personality



## Bio

- Roger is an instructor who teaches Mathematics.
- He manages approximately 40 students and conducts lectures online.

## Frustrations

- Struggling to get free time from day to day busy life and activities.
- Trying to keep himself updated with new technology updates on his many devices.

## Interests

- Learning new regional or national languages.
- Cuddling Dogs and long walks on the beach.

## Goals

- Setting up an example for the community to be a better society.
- Raising an organization to help orphan pets.





# Alison



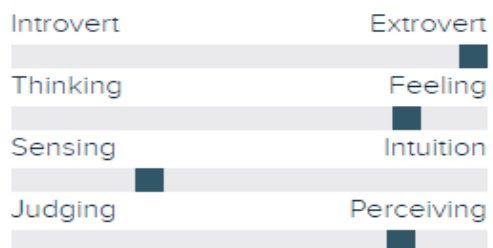
Age: 17

Work: **Student**

Marital Status: **Single**

Location: **Phoenix , Arizona**

## Personality



## Bio

- Alison is finishing her first year, and she is interested in business. Although she has yet to declare a major, she's considering finance or marketing.
- After watching her parents run a restaurant for years, she knew at a very young age that she also wanted to go into business.

## Interests

- Basketball
- Golf
- Making new friend

## Frustrations

- Making decisions related to her majors.
- Experimenting with new activities in University.
- Time management.

## Goals

- Aspires to start a business in the financial sector.
- Wants to travel the world.



# Tom



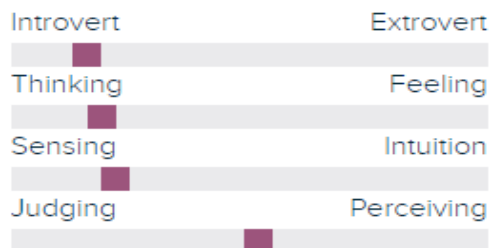
Age: 19

Work: **Student**

Marital Status: **Single**

Location: **Little Rock, Arkansas**

## Personality



## Bio

- Tom is a 19 year old who likes to achieve bigger goals and aims.
- He is an enthusiast when it comes to studies and singing hip-hop.

## Frustrations

- Paying off rent and student loans/Depts.
- Meeting professional deadlines that are lined up consecutively.

## Interests

- Playing Football.
- Solving Puzzles with mind games.

## Goals

- Experiencing nomadic life by continuous travelling around the globe.
- To be a scientists in the field of medical studies and research.



# Minimal Viable Product(MVP):



## Registration/Signup

User can register into application.

## Login

User can login into the application with valid credentials.

## Homepage

User can view the course.

## Instructor Page

Instructor can add course through this page.

## Course

Add and delete course for the Admin.

## Admin Dashboard

Minimal settings page for admin & enrolment of a student.

## Logout

User can Logout from the application.

# Technologies:



## Database:



## Communication:



## Deployments:



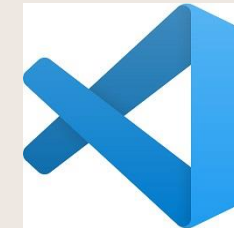
## Back-end:



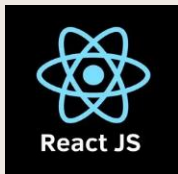
## Repository:



## Code editor:



## Front-end:



## Project Tracking:

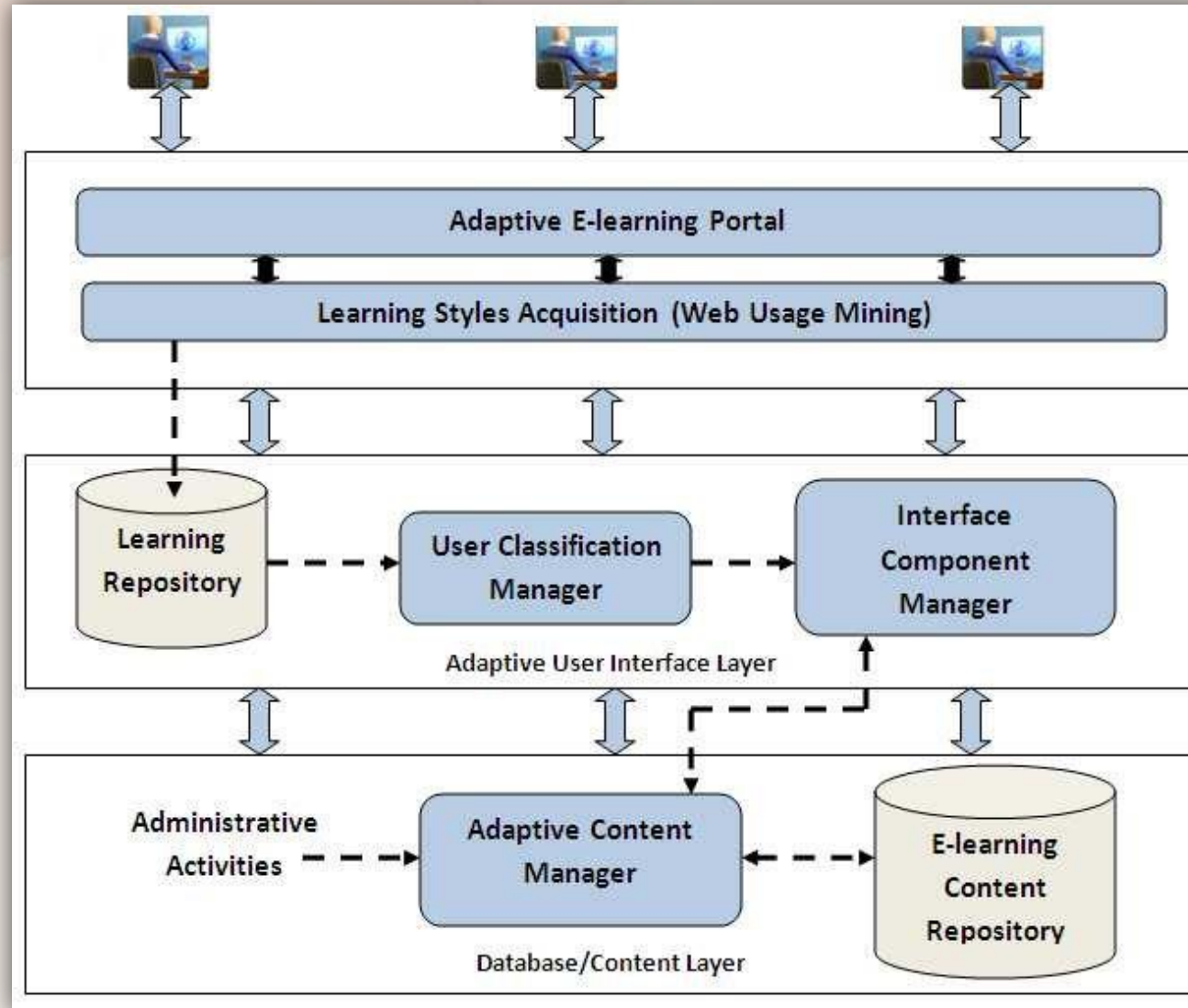


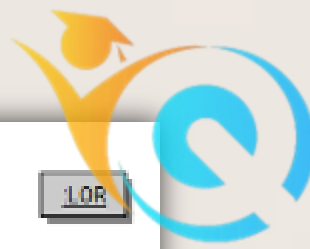
## Visual Studio



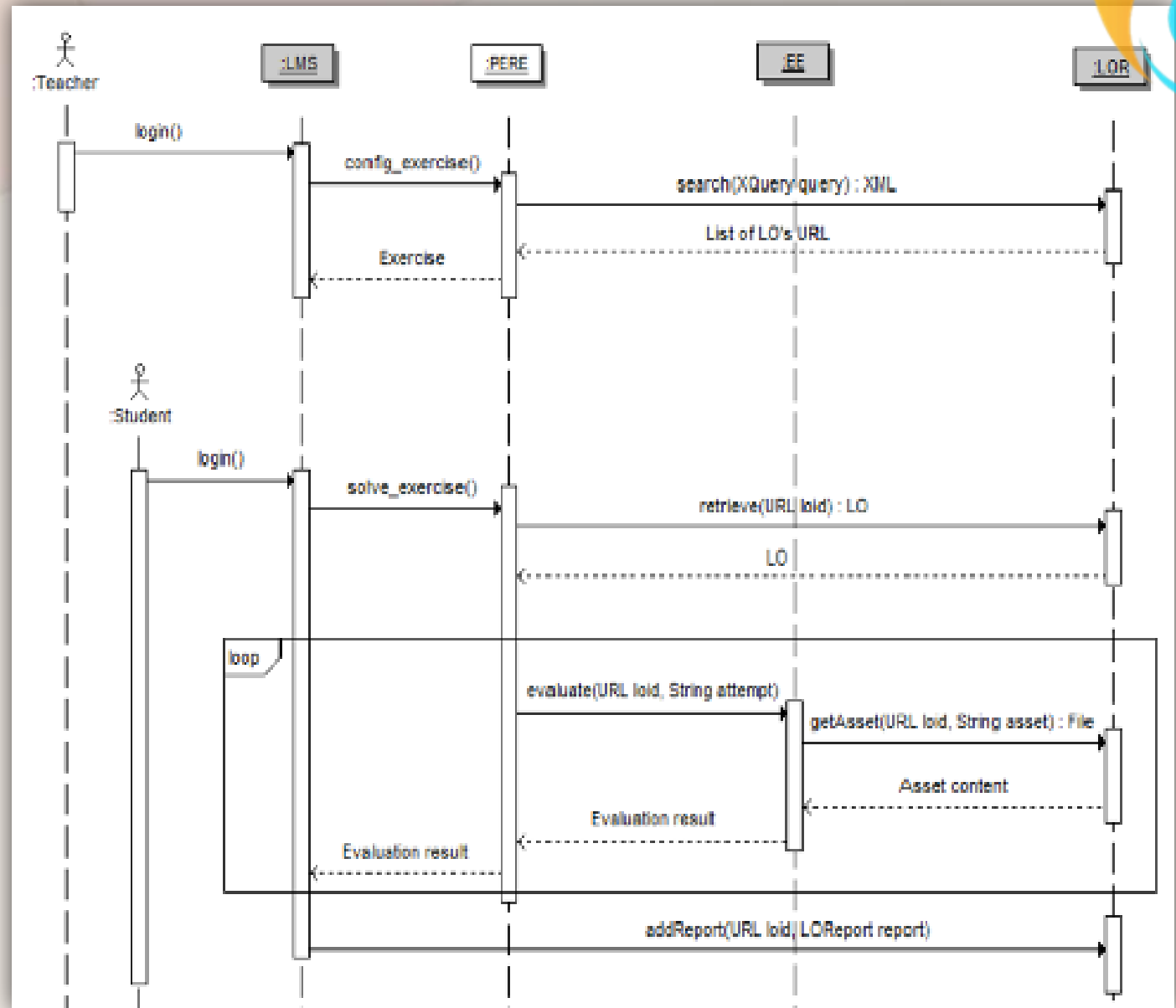


# Conceptual Architecture Diagram:





# Sequence Diagram



# Application Modeling:



Quick Learning  
App

Authentication  
& Authorization

## Admin

- Departments, Courses, Professors, and Students list.
- Maintaining and monitoring the professors and student's profile.
- Communication channels.
- Maintaining and monitoring courses content up-to-date.
- Looking into Accounts.

## Professor

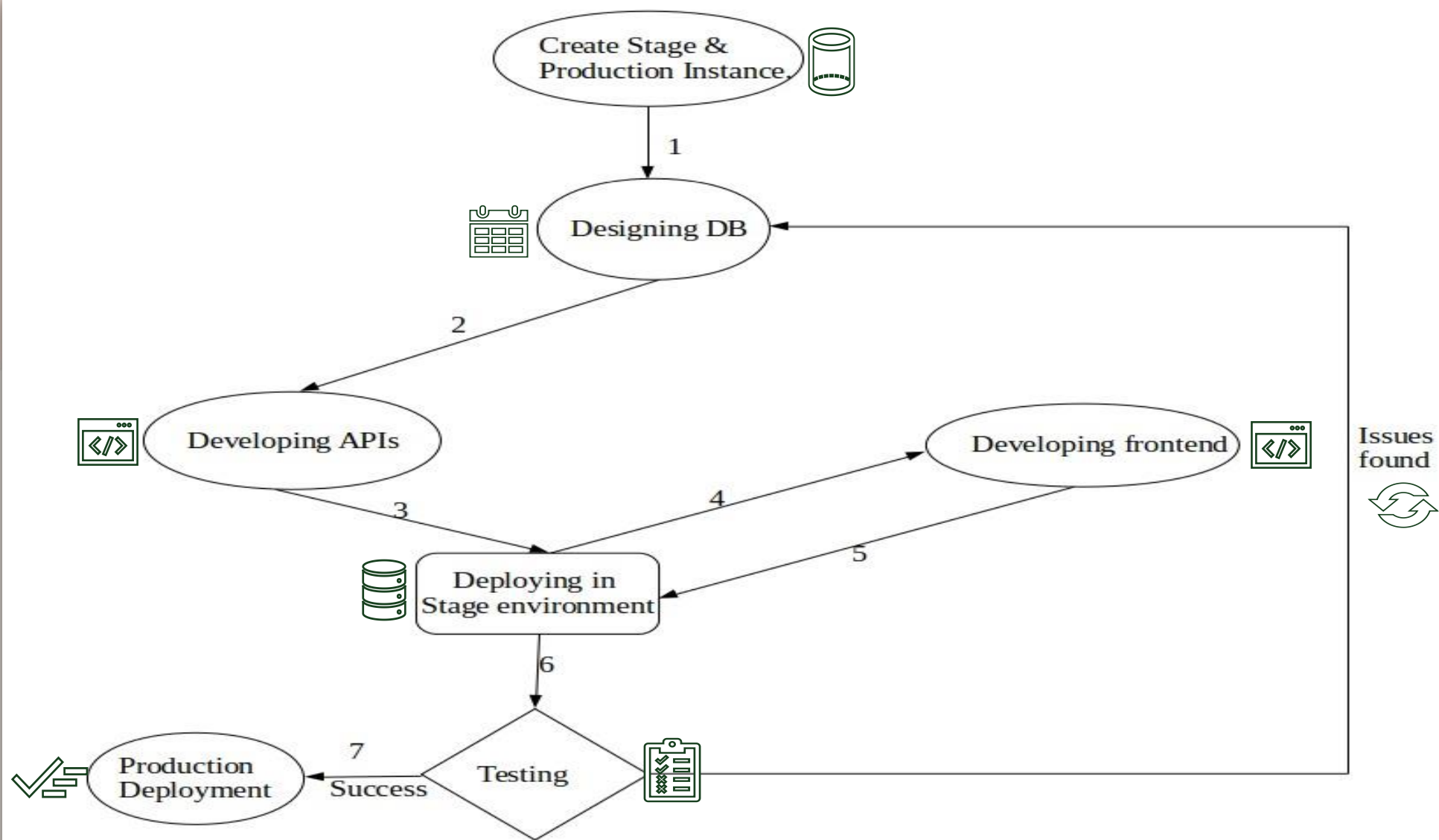
- Upcoming schedules.
- List of courses.
- Attend live classes.
- Uploading course related contents.
- Uploading assignments, quizzes and exams.
- Give marks and feedbacks.
- Monitoring the student's progress.
- Conduct Study hours.
- Special Classes.
- Communication channels.

## Student

- List of courses.
- Weekly schedule.
- Personal profile.
- Upload assignments, write exams, submit quizzes.
- Marks.
- Achievements.
- Workshops.
- Badges.
- Certifications.
- Downloads.
- Important (OR) Saved materials.
- Handshake.
- Communication channels.
- Courses payment details.



# Software Development Cycle:





# SPRINT 3 RECAP:

- Forgot password
- Add Course
- List Course
- Delete Course
- Course Details

# PROJECT RECAP:

- SignUp
- Login
- Logout
- Create My Account
- Update My Account
- Forgot password
- Add Course
- List Course
- Delete Course
- Course Details

# Sprint 3 vs Sprint 4:



Sprint 3	Sprint 4
Forgot Password	Fixed the issues in course details in the Instructor Page.
Add Course	Wishlist to save courses for the student.
List Course	Sending messages.
Delete Course	Search bar for the courses for the guest.
Course Details	Top 10 courses for guest.



# Product Backlog:



Id	Issue Type	Story	Status	Story Points
BREW-107	Task	Need to encrypt the password while storing in Database.	To-do	--
BREW-108	Story	As a Student, I want to do the payment so that I can join or able to see the class of the course that I want to learn.	To-do	8
BREW-109	Task	Need to add the faster loading pages.	To-do	--
BREW-131	Story	As a user, I want the content in my language because it is convenient for me.	Planned	--
BREW-112	Story	As a User, I want to see the notifications, so that I can be able to know the updates.	To-do	3
BREW-117	Story	As a student, I want to check my grades, so that I will know my progress.	To-do	5
BREW-129	Story	As a Professor, I want to upload the materials for the course, so that students can revise everything that I taught.	To-do	5
BREW-130	Story	As a Student, I want to able to see the materials, so that I can revise everything.	To-do	3

# Product Backlog:



Id	Issue Type	Story	Status	Story Points
BREW-132	Story	As a Student, I want to download the materials, so that I can see them offline as well.	To-do	3
BREW-133	Story	As a Professor, I want upload assignments, so that I can check the student's knowledge of my course.	To-do	5
BREW-134	Story	As a Student, I want to submit assignments, so that I professor can see my answers.	To-do	5

# Sprint Backlog:



UserStories ID	Summary	Story Point
BREW-123	As a student I want to save the course to my wishlist So that I can buy it easily	1
BREW-124	As an admin I want to send messages to the teachers/students So that I can communicate with them	3
BREW-125	As a student I want to send messages to the teachers/admins So that I can communicate with them	3
BREW-126	As a professor I want to send messages to the admin/students So that I can communicate with them	3
BREW-127	As a guest I want to search for the course So that I can buy them	3
BREW-128	As a guest, I want to see the top 10 courses So that I know the demand in the market	1



# User Stories:



User Story Id	Summary	Status
BREW-123	As a student I want to save the course to my wishlist So that I can buy it easily	Done
	<b>Scenario</b> The student wants to add the course to his Wishlist Given the student is logged in using the correct credentials When the course is available Then the student can buy it	
BREW-124	As an admin I want to send messages to the teachers/students So that I can communicate with them	Done
	<b>Scenario</b> The admin wants to send a message to the teachers Given the admin is logged in using the correct credentials When the admin is connected to a network Then the message will be delivered	
BREW-125	As a student I want to send messages to the teachers/admins So that I can communicate with them	Done
	<b>Scenario</b> The student wants to send a message to the teachers Given the admin is logged in using the correct credentials When the student is connected to a network Then the message will be delivered	

User Story Id	Summary	Status
BREW-126	<p>As a professor I want to send messages to the admin/students So that I can communicate with them</p>	Done
	<p><b>Scenario</b> The teacher wants to send a message to the students Given the admin is logged in using the correct credentials When the teacher is connected to a network Then the message will be delivered</p>	
BREW-127	<p>As a guest I want to search for the course So that I can buy them</p>	Done
	<p><b>Scenario</b> The guest wants to search for a course Given the web app is live/up When the guest is connected to a network Then the guest can search for a course</p>	
BREW-128	<p>As a guest, I want to see the top 10 courses So that I know the demand in the market</p>	Done
	<p><b>Scenario</b> The guest wants to search for a course Given the guest is on the home page When the guest is connected to a network Then the guest see the top 10 course</p>	

# Test Cases:



User Story Id	Test ID	Description	Test Case	Current State	Test Data	Excepted Result	Status
US011	TD00111	wishlist	Check whether user is logged in as student	User logged into the application and go to profile and check the role	User should be student	User should be the student	Pass
US011	TD00112		Select the course which he wants to study	User logged into the application and is in wishlist tab	User should be student	User should be able select the course	Pass
US011	TD00113		User should be able to insert course into his wishlist	User logged into the application and is in wishlist tab	User should be student	User should be able to select the courses	Pass
US011	TD00114		User should be able to remove the course from his wishlist	User logged into the application and is in wishlist tab	User should be student	User should be able to add the course into his wishlist	Pass
US011	TD00115		User is Logged in as Instructor and admin	User logged into the application and is in wishlist tab	User should be student	User should not be able to add the courses in wishlist	Pass
US012	TD00121	Send Messages-Admin	Check whether user is logged in as admin	User logged into the application and go to profile and check the role	User should be Admin	User should be the admin	Pass
US012	TD00122		User should be able to write the message in the text box	User logged into the application and is in send message tab	User should enter the text in textbox	User should be able to enter the text in the text box	Pass
US012	TD00123		User should be able to click on the send button	User logged into the application and is in send message tab	User should be Admin	User should be able to click on the search button	Pass
US012	TD00124		User should be able to send the messages to students	User logged into the application and is in send message tab	User should be Admin	User should be able to send the messages	Pass
US012	TD00125		User should be able to send the messages to profesors	User logged into the application and is in send message tab	User should be Admin	User should be able to send the messages	Pass
US012	TD00126		Check message after login and logout	User logged into the application and is in send message tab	User should be Admin	User should be able to see the messages after logging out of the application and logging in	Pass
US012	TD00127		Check same message delivered to the receipient	User logged into the application and is in send message tab	User should be Admin	check whether the same message delivered to the students and Instructor	Pass
US012	TD00128		User should not be able to send the messages if he is not admin	User logged into the application and go to profile and check the role	User should be Admin	User should not be able to send the messages	Pass
US013	TD00131	Send Messages-Student	Check whether user is logged in as student	User logged into the application and go to profile and check the role	User should be the student	User should be the Student	Pass
US013	TD00132		User should be able to write the message in the text box	User logged into the application and is in send message tab	User should be student	User should be able to enter the text in the text box	Pass
US012	TD00123		User should be able to click on the send button	User logged into the application and is in send message tab	User should be Admin	User should be able to click on the search button	Pass
US013	TD00133		User Should not be able to send the messages to the admin	User logged into the application and is in send message tab	User should be student	User should not be able to send the messages to the admin	Pass
US012	TD00134		User should be able to send the messages to profesors	User logged into the application and is in send message tab	User should be Admin	User should be able to send the messages	Pass
US012	TD00135		Check message after login and logout	User logged into the application and is in send message tab	User should be Admin	User should be able to see the messages after logging out of the application and logging in	Pass
US012	TD00136		Check same message delivered to the receipient	User logged into the application and is in send message tab	User should be Admin	check whether the same message delivered to the Instructor	Pass



# Test Cases:



User Story Id	Test ID	Description	Test Case	Current State	Test Data	Expected Result	Status
US014	TD00141	Send Messages-Instructor	Check whether user is logged in as Instructor	User logged into the application and go to profile and check the role	User should be the Instructor	User should be the Instructor	Pass
US014	TD00142		User should be able to write the message in the text box	User logged into the application and is in send message tab	User should be student	User should be able to enter the text in the text box	Pass
US014	TD00143		User should be able to click on the send button	User logged into the application and is in send message tab	User should be student	User should be able to click on the search button	Pass
US012	TD00144		User should be able to send the messages to students	User logged into the application and is in send message tab	User should be Admin	User should be able to send the messages	Pass
US012	TD00145		User should be able to send the messages to admin	User logged into the application and is in send message tab	User should be Admin	User should be able to send the messages	Pass
US012	TD00146		Check message after login and logout	User logged into the application and is in send message tab	User should be Admin	User should be able to see the messages after logging out of the application and logging in	Pass
US012	TD00147		Check same message delivered to the recipient	User logged into the application and is in send message tab	User should be Admin	check whether the same message delivered to the students and Instructor	Pass
US014	TD00148		User should not be able to send the messages if he is not Instructor	User logged into the application and is in send message tab	User should be student	User should not be able to send the messages	Pass
US015	TD00151	Search Courses	User should be able enter the course name in text box	User is not logged into the application and is in the search courses tab	User should be the guest	User should be able to enter the course name in the text box	Pass
US015	TD00152		User should be able to click on the search button	User is not logged into the application and is in the search courses tab	User should be the guest	User should be able to view the list of course	Pass
US015	TD00153		User should be able to see the suggestions after entering the text	User is not logged into the application and is in the search courses tab	User should be the guest	User should be able to see the suggestions after entering the text	Pass
US015	TD00154		User entered the invalid course details	User is not logged into the application and is in the search courses tab	User should be the guest	User should get the message invalid course details	In Progress
US016	TD00163	Top courses	User should be able to view the list of top 10 courses	User is not logged into the application	User should be the guest	User should be able to view the list of top 10 courses	pass

# Stories Completed and Stories Not Completed

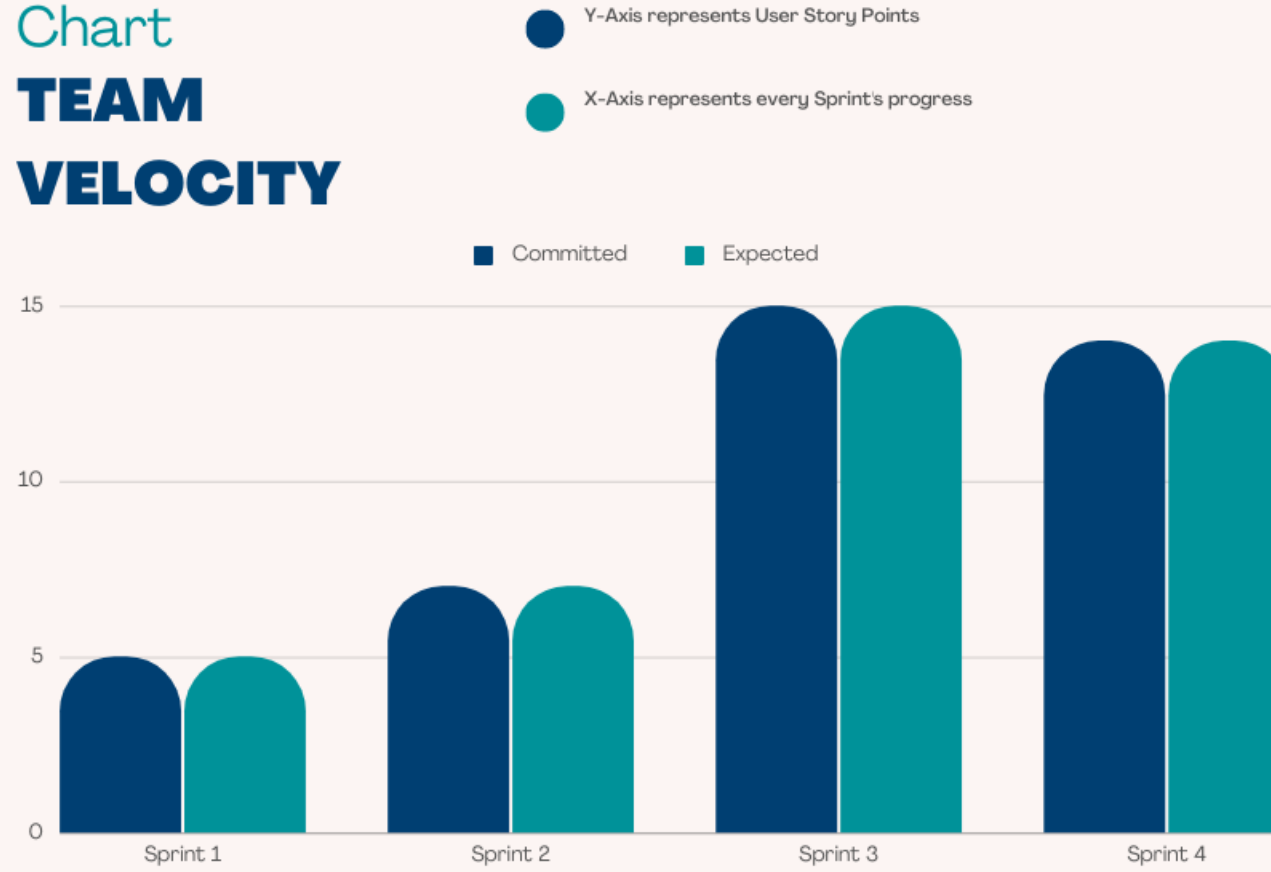


UserStory ID	Summary	Story Point	Status
BREW-123	As a student I want to save the course to my wish list So that I can buy it easily	1	Completed
BREW-124	As an admin I want to send messages to the teachers/students So that I can communicate with them	3	Completed
BREW-125	As a student I want to send messages to the teachers So that I can communicate with them	3	Completed
BREW-126	As a professor want to send messages to the admin/students So that I can communicate with them	3	Completed
BREW-127	As a guest I want to search for the course So that I can see the details of the course directly	3	Completed
BREW-128	As a guest, I want to see the top 10 courses So that I know the demand in the market	1	Completed

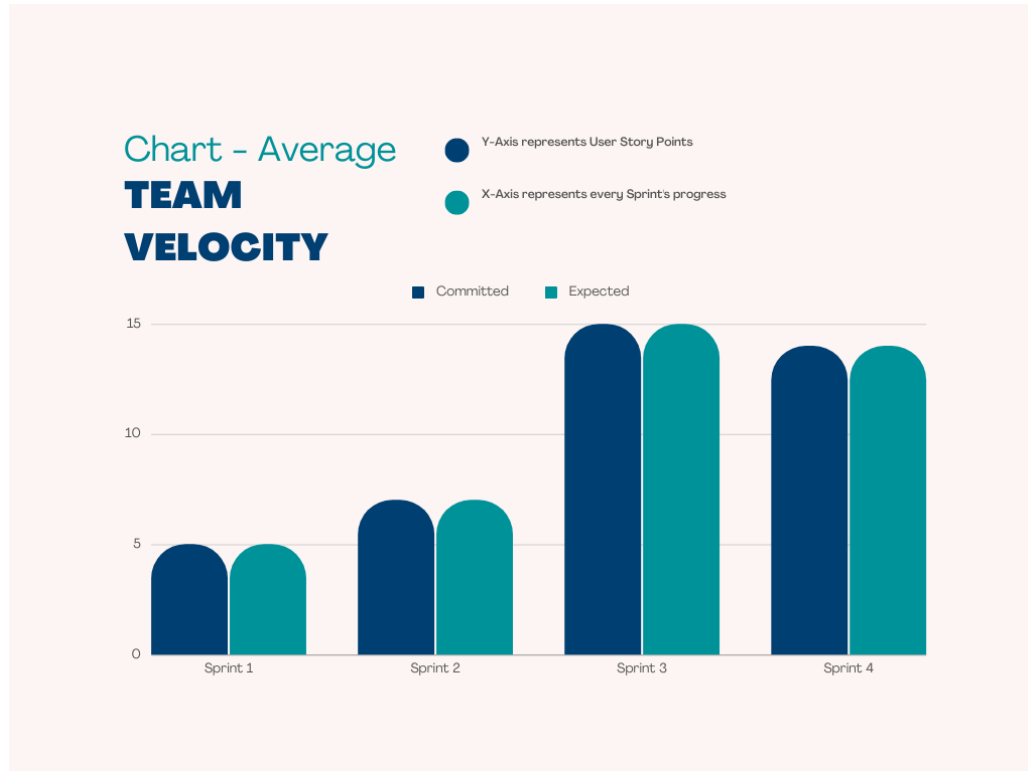
# Team Velocity Chart:



## Chart **TEAM VELOCITY**



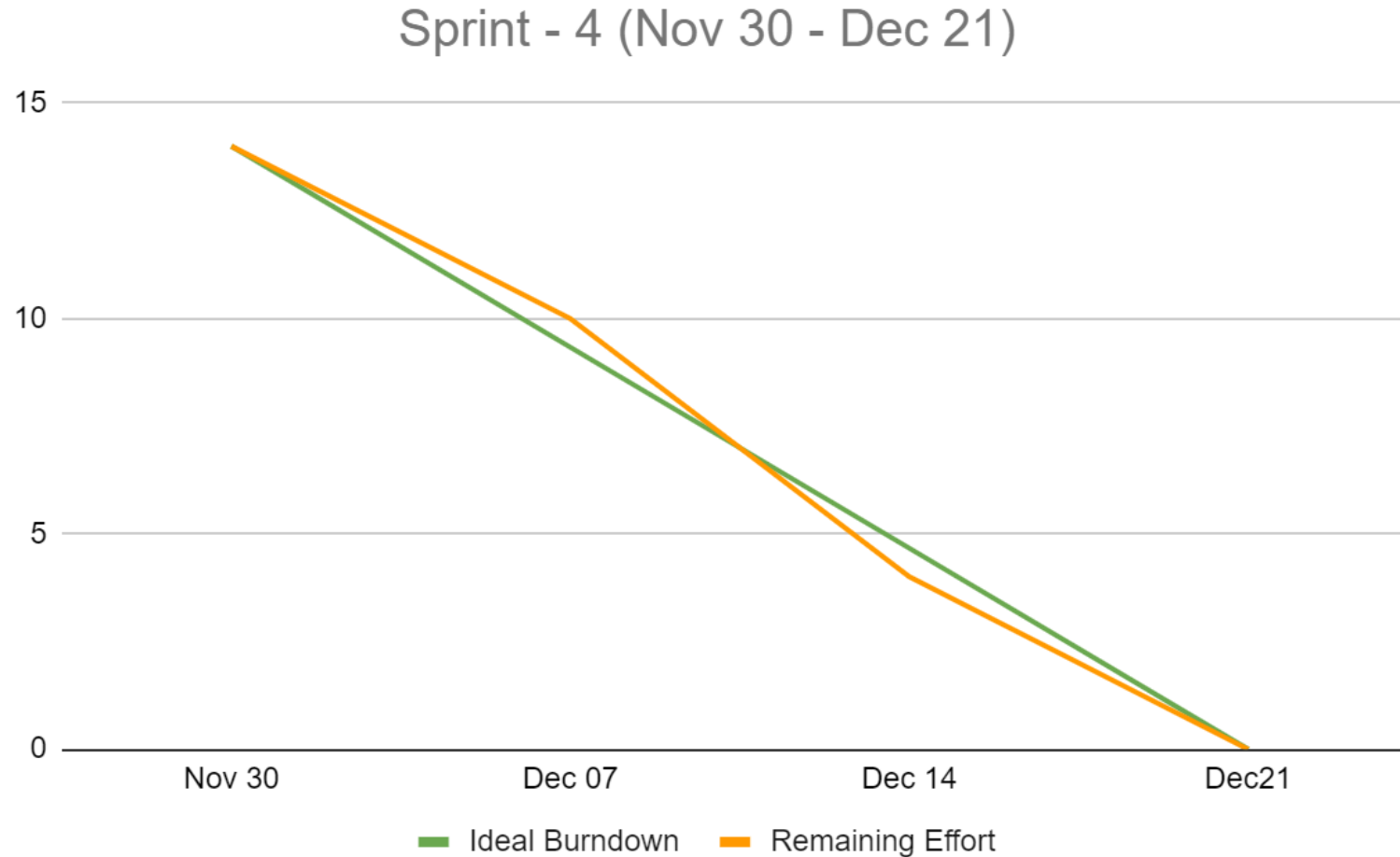
# Team History Velocity (Average):



Average Velocity is:  
 $(5+7+15+14)/4=10.25$



# Burndown Chart:



- **X-Axis represents the progressive dates of Sprint 4.**
- **Y-Axis represents the User Story points of Sprint 4.**

# Committed Against Completed Ratio:

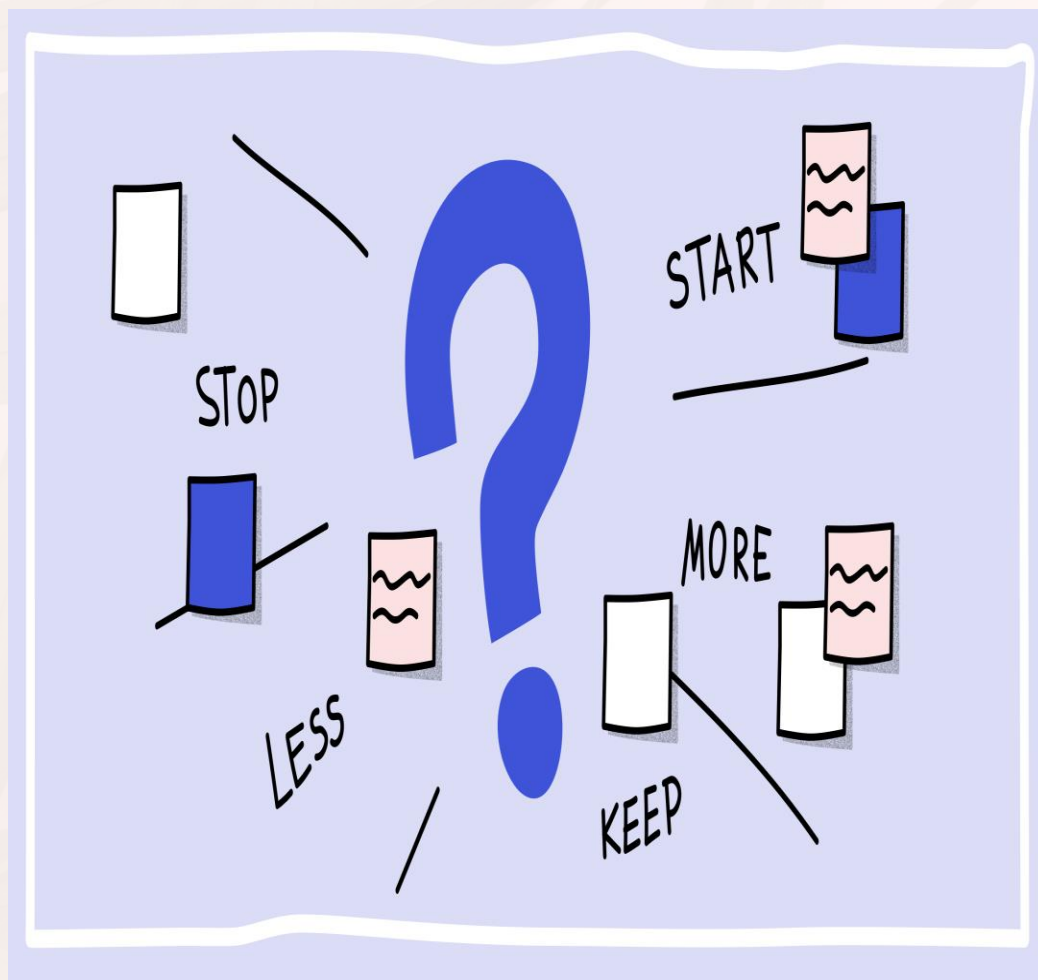


## Completed Against Committed Ratio

Sprint	Committed	Completed	Ratio
QL Sprint 1	5	5	100%
QL Sprint 2	7	7	100%
QL Sprint 3	15	15	100%
QL Sprint 4	14	14	100%

Average Completed Against Committed  
Ratio = 100%

Current Completed Against Committed  
Ratio (QL Sprint 4) = 100%



# Retrospective



# What went well?

- **Enhanced collaboration, communication, trust and team spirit.**
- **Improved team productivity.**
- **An ability to prevent past mistakes from happening again.**
- **Better anticipation of future problems.**
- **Time Management is efficient.**
- **All members knew what they had to do — and did it!**
- **Backlog items are Prioritized and worked accordingly.**
- **We discussed about the user stories and got the better understanding about it .**





# What didn't go well?

- **Our estimates were bit optimistic**
- **We have not reached our testing goals.**
- **Changing the user stories late in the sprint.**
- **Unexpected bugs raised as the unit testing is not proper.**
- **Find more accurate ways to estimate our user stories.**



# What needs improvement?

- **Get better at estimating**
- **User testing should be better developed in the sprint**
- **Hold meeting only when we need to**
- **Set time in each sprint for knowledge sharing**
- **Guarantee all user stories have clear acceptance criteria before picking them up.**
- **Use a more accurate way to estimate the story size**



## Stories Planned and Committed for Sprint 5:

Story_ID	Stories	Status
BREW-107	Need to encrypt the password while storing in Database.	To-do
BREW-109	Need to add the faster loading pages.	To-do
BREW-108	As a Student, I want to do the payment so that I can join or able to see the class of the course that I want to learn.	To-do
BREW-112	As a User, I want to see the notifications, so that I can be able to know the updates.	To-do
BREW-129	As a Professor, I want to upload the materials for the course, so that students can revise everything that I taught.	To-do
BREW-130	As a Student, I want to able to see the materials, so that I can revise everything.	To-do
BREW-132	As a Student, I want to download the materials, so that I will be able to access them offline too.	To-do





Active Courses | Learning Manage x

http://localhost/QuickLearning/user

Quick Learning

Learning Management System Online

Visit Website

Henry Wong  
Instructor

Henry Wong

NAVIGATION

- Courses
- Instructor Revenue
- Settings

Courses

+ Add New Course

0  
Active Courses

0  
Pending Courses

0  
Draft Courses

0  
Free Courses

0  
Paid Courses

COURSE LIST

Categories

All

Status

All

Price

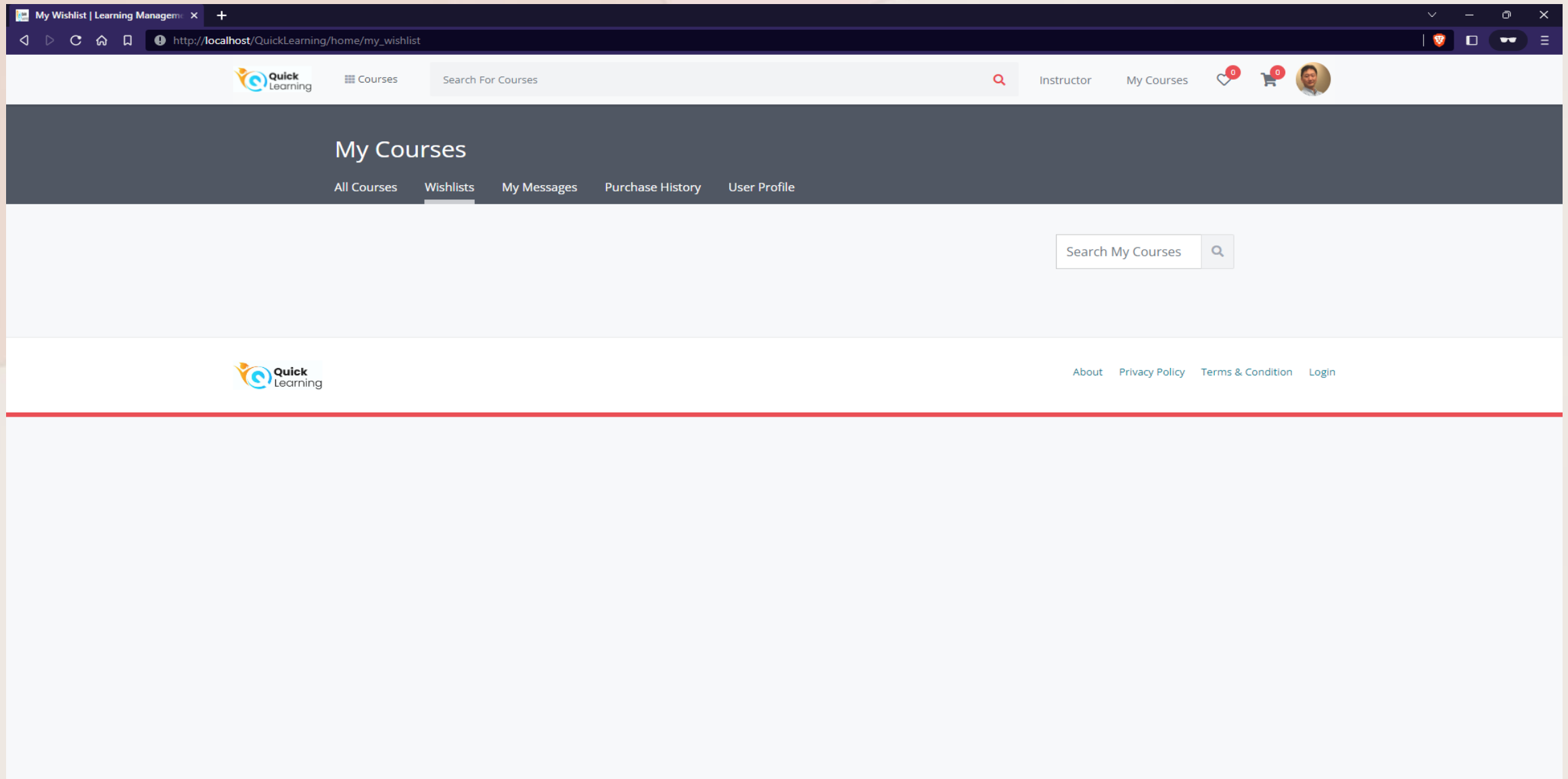
All

Filter

No Data Found

Page for Instructor

38



User can Wishlist the course





My Messages | Learning Manager x +

http://localhost/QuickLearning/home/my\_messages/read\_message/bac9d4d0c7e3efe

Quick Learning Courses Search For Courses

Instructor My Courses

## My Courses

All Courses Wishlists My Messages Purchase History User Profile

Compose

admin admin

Wed, 21-Dec-2022

hey

Wed, 21-Dec-2022

hey

Type Your Message...

Send

User can send messages



Browser tabs: Add Course | Learning Management System

Address bar: http://localhost/QuickLearning/user/course\_form/add\_course

Header: Quick Learning Learning Management System Online Visit Website

User: Henry Wong Instructor

### Add New Course

COURSE ADDING FORM [← BACK TO COURSE LIST](#)

Basic Requirements Outcomes Pricing Media Seo Finish

Course Title \*

Short Description

Description 

**B** **U** Nunito

Category\*

Level

Instructor can add a course



**WIKIPAGE LINK:**

[Click here for the WIKIPAGE](#)





**HAPPY LEARNING**



**Thank You**