WEEK-1

1. Discuss success and failure stories of software

Success story of software:

1. Slack:

Slack is a cloud-based proprietary instant messaging platform. It's a chatroom for the entire company designed to replace email as the primary method of communication. Stewart Butterfield is the CEO and co-founder of Slack. In 2013, Stewart and his team launched Slack, The backend development and development of slack app integrations usually takes close to 360 hours of coding, which amounts to $54,000 on average. Which has transformed business communication. Now slack has net worth of 27.7 billion USD. Slack is used by more than 10 million daily active users.

2. Flipkart:

Flipkart is an Indian e-commerce company, was founded in October 2007 by Sachin Bansal and Binny Bansal, Flipkart is the most prominent e-Commerce website in India and is empowering tons of Indian businesses into the competitive online shopping industry. The initial development budget of Flipkart was INR ₹400,000 later it was funded by many funders. In August 2018, U.S.based retail chain Walmart acquired a 77% controlling stake in Flipkart for US$16 billion, valuing Flipkart at around $20 billion. And now Flipkart has more than 350 million customers and offering 150 million products across 80+ categories with net worth of 40 billion

3. Phonepe:

Phonepe is a mobile payment platform. Phonepe was founded in December 2015 Its founder are Sameer nigam, Rahul Chari. Phonepe investment was 12 million. It went live in august 2016.It could be linked to a single debit/credit card or bank account. This app is available in 11 Indian languages. It helps to online transaction easily with safe from cybercriminals. The phonepe was based on UPI (unified payment interface).Phonepe was secured by UPI password. It is very easy to recharge your mobile number through phonepe. One of the other features of the phonepe app is the option to send and receive money using a QR code.

Failure Story of software:

1. Software Fault in Airbus A400M plane:

In May 2015The Airbus A400M crashed near Seville, on 9 May, after a failed emergency landing during its first flight. It was a fatal crash that happened in Spain. Data needed to run the engines had been accidentally erased and lead to crash and cost the loss of 23 billion and 4 crew members

2. Ransomware attack to colonial pipeline:

In 2021 hackers get access to computer system and essentially hold a company hostage for money. The attack began when a hacker group identified as DarkSide accessed the Colonial Pipeline network. The attackers stole 100 gigabytes of data within a two-hour window. Following the data theft, the attackers infected the Colonial Pipeline IT network with ransomware that affected many computer systems, including billing and accounting.

One of the largest fuel pipeline in the US, colonial pipeline was hit by a cyberattack which was made colonial CEO to pay 4.4 million dollars to get company's network up and running again.

1. Nest thermostat leaves:

Nest thermostat is a home app or nest app. In mid -Jan 2016 nest smart thermostat was developed. It was owned by Google. It cost was $50 million. This software is used to heat the homes in the cold time. While it's actively heating or cooling, the error in this software was forcing the device batteries to drain, leaving it unable to control temperature, so customers were unable to heat their homes.

Software ethical practices:

Profession:

Software engineers shall advance the integrity and reputation of the profession consistent with the public interest. In particular, software engineers shall, as appropriate:

- Help develop an organizational environment favorable to acting ethically.
- Promote public knowledge of software engineering.
- Extend software engineering knowledge by appropriate participation in professional organizations, meetings and publications.
- Support, as members of a profession, other software engineers striving to follow this Code.
- Not promote their own interest at the expense of the profession, client or employer.
- Avoid associations with businesses and organizations which are in conflict with this code.
- Take responsibility for detecting, correcting, and reporting errors in software and associated documents on which they work.

Laws for IT industry in India:

The Computer Misuse Act 1990

The Computer Misuse Act creates three new offences that can briefly be described as:

- Unauthorized access to a computer;
- Unauthorized access to a computer with intention to commit a serious crime; and
- Unauthorized modification of the content of a computer

Section 1: of the Computer Misuse Act 1990 states that, a person is guilty of an offence if

- Person causes a computer to perform any function with intent to secure access to any program or data held in any computer
- Person access he intends to secure is unauthorized and
- Person knows at the time when he caused the computer to perform the function that is the case.

Section 2: of the Act is concerned with gaining unauthorized access to a computer with the intention of committing a more serious offence.

- A black mailer might attempt to gain unauthorized access to medical records
- A terrorist might try to get access to a computer system to cause accidents to happen

Section 3: of the Act states that: a person is guilty of an offence if

- He does any act which causes an unauthorized modification of the contents of any computer.
- At the time when he does the act he has the requisite intent and the requisite knowledge

The Data Protection Act 1998 (DPA)

To determine the appropriateness of security measures, you should consider all of the following:

- Unauthorized or unlawful processing of personal data.
- Accidental loss or destruction of, or damage to, personal data
- implementation costs
- technological developments
- the nature of the data - sensitive personal data will merit particular attention
- the harm that might result from unauthorized or unlawful processing or from accidental loss destruction and damage to the data

WEEK-2

1. Case study to understand the SDLC

Software Development Life Cycle

The Software Development Life Cycle (SDLC) refers to a methodology with clearly defined processes for creating high-quality software. In detail, the SDLC methodology focuses on the following phases of software development.

- Requirement analysis.
- Planning.
- Software design such as architectural design.
- Software development.
- Testing.
- Deployment.

This article will explain how SDLC works, dive deeper in each of the phases, and provide you with examples to get a better understanding of each phase.

What is the software development life cycle?

SDLC or the Software Development Life Cycle is a process that produces software with the highest quality and lowest cost in the shortest time possible. SDLC provides a well-structured flow of phases that help an organization to quickly produce high-quality software which is well-tested and ready for production use.

The SDLC involves six phases as explained in the introduction. Popular SDLC models include the waterfall model, spiral model, and model. So, how does the Software Development Life Cycle work?

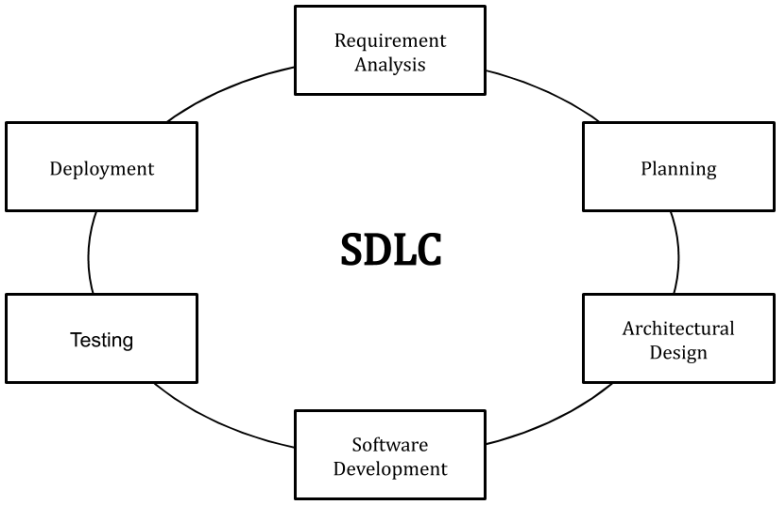
How the SDLC Works

SDLC works by lowering the cost of software development while simultaneously improving quality and shortening production time. SDLC achieves these apparently divergent goals by following a plan that removes the typical pitfalls of software development projects. That plan starts by evaluating existing systems for deficiencies.

Next, it defines the requirements of the new system. It then creates the software through the stages of analysis, planning, design, development, testing, and deployment. By anticipating costly mistakes like failing to ask the end-user or client for feedback, SLDC can eliminate redundant rework and after-the-fact fixes.

It’s also important to know that there is a strong focus on the testing phase. As the SDLC is a repetitive methodology, you have to ensure code quality at every cycle. Many organizations tend to spend few efforts on

testing while a stronger focus on testing can save them a lot of rework, time, and money. Be smart and write the right types of tests. Next, let's explore the different stages of the Software Development Life Cycle.



Stages and Best Practices

Following the best practices and/or stages of SDLC ensures the process works in a smooth, efficient, and productive way.

1. Identify the Current Problems

"What are the current problems?" This stage of the SDLC means getting input from all stakeholders, including customers, salespeople, industry experts, and programmers. Learn the strengths and weaknesses of the current system with improvement as the goal.

2. Plan

"What do we want?" In this stage of the SDLC, the team determines the cost and resources required for implementing the analyzed requirements. It also details the risks involved and provides sub-plans for softening those risks. In other words, the team should determine the feasibility of the project and how they can implement the project successfully with the lowest risk in mind

3. Design

"How will we get what we want?" This phase of the SDLC starts by turning the software specifications into a design plan called the Design Specification. All stakeholders then review this plan and offer feedback and suggestions. It's crucial to have a plan for collecting and incorporating stakeholder input into this document. Failure at this stage will almost certainly result in cost overruns at best and the total collapse of the project at worst.

4. Build

"Let's create what we want. "At this stage, the actual development starts. It's important that every developer sticks to the agreed blueprint. Also, make sure you have proper guidelines in place about the code style and practices. For example, define a nomenclature for files or define a variable naming style such as camel Case. This will help your team to produce organized and consistent code that is easier to understand but also to test during the next phase.

5. Code Test

"Did we get what we want?" In this stage, we test for defects and deficiencies. We fix those issues until the product meets the original specifications. In short, we want to verify if the code meets the defined requirements.

6. Software Deployment

"Let's start using what we got." At this stage, the goal is to deploy the software to the production environment so users can start using the product. However, many organizations choose to move the product through different deployment environments such as a testing or staging environment. This allows any stakeholders to safely play with the product before releasing it to the market. Besides, this allows any final mistakes to be caught before releasing the product.

Extra: Software Maintenance

"Let's get this closer to what we want." The plan almost never turns out perfect when it meets reality. Further, as conditions in the real world change, we need to update and advance the software to match.

The DevOps movement has changed the SDLC in some ways. Developers are now responsible for more and more steps of the entire development process. We also see the value of shifting left. When development and Ops teams use the same toolset to track performance and pin down defects from inception to the retirement of an application, this provides a common language and faster handoffs between teams.

Application performance monitoring (APM) tools can be used in a development, QA, and production environment. This keeps everyone using the same toolset across the entire development lifecycle.

Examples

The most common SDLC examples or SDLC models are listed below.

Waterfall Model

This SDLC model is the oldest and most straightforward. With this methodology, we finish one phase and then start the next. Each phase has its own mini-plan and each phase "waterfalls" into the next. The biggest drawback of this model is that small details left incomplete can hold up the entire process.

Agile Model

The Agile SDLC model separates the product into cycles and delivers a working product very quickly. This methodology produces a succession of releases. Testing of each release feeds back info that's incorporated into the next version. According to Robert Half, the drawback of this model is that the heavy emphasis on customer interaction can lead the project in the wrong direction in some cases.

Iterative Model

This SDLC model emphasizes repetition. Developers create a version very quickly and for relatively little cost, then test and improve it through rapid and successive versions. One big disadvantage here is that it can eat up resources fast if left unchecked.

V-Shaped Model

An extension of the waterfall model, this SDLC methodology tests at each stage of development. As with waterfall, this process can run into roadblocks.

Big Bang Model

This high-risk SDLC model throws most of its resources at development and works best for small projects. It lacks the thorough requirements definition stage of the other methods.

Spiral Model

The most flexible of the SDLC models, the spiral model is similar to the iterative model in its emphasis on repetition. The spiral model goes through the planning, design, build and test phases over and over, with gradual improvements at each pass.

Case study to understand the SDLC on video doorbell

Introduction:

The purpose of this project is to make home or office or any area secure. When someone presses the doorbell, then the doorbell make a video call to the registered number. If someone roams in front of the door it notifies you by sending message. Then he can see the person who is roaming in front of our door. So, if the person is known we can open the door otherwise we can be alert. And also we can talk to the person through mobile only and the person can reply there itself, Because it contains the audio speaker so that we can hear the outside people talks trough the mobile once we pick up the video call. If someone tries to steal it then the steal alarm will be activated.

Requirements:

Hardware requirements:

- Raspberry pi a small single board computer.
- PIR sensor (passive infrared sensor).
- Camera with 1080p resolution.
- SD card with the storing capacity of 1TB.
- A microphone and speakers.
- Chime with multiple tones.
- Push button.
- DC motor with relay circuit.

For software:

- Python programming
- PHP programming
- Raspbian Jessie OS
- Apache
- Open cv

How should software work?

- When a visitors press the button make a video call to the authorized owner.
- If someone roams in front of the door take pictures and notify the owner.
- When someone try to steal the doorbell start the alarm and notify the owner.
- Work according to the instructions given by the authorized software application.

Android application:

- The interface to select the modes home, away , night
- Call history with the picture of the person.
- It should notify when anyone presses the bell.
- A quality video call.

Designing:

Designing is a mechanism that transform user requirements into some suitable form, which helps the programmer if software coding.

Coding:

Coding is mainly done by using python programming, PHP programming.

Testing:

Testing is the process of executing a program to find errors. To make our software perform well it should be error-free.

Deployment:

Here the final product is delivered or deployed to user needed place

Maintenance:

The maintenance and modifications are provided for some period of time according to the agreement.

Update:

Updates will be provided if the user need better experience or extra features after the product delivery.

Advantages:

- Know who is at the door
- Speak to visitors without opening the door
- See who came by when you were away from the home
- Powerful component for home security.
- Can be installed anywhere

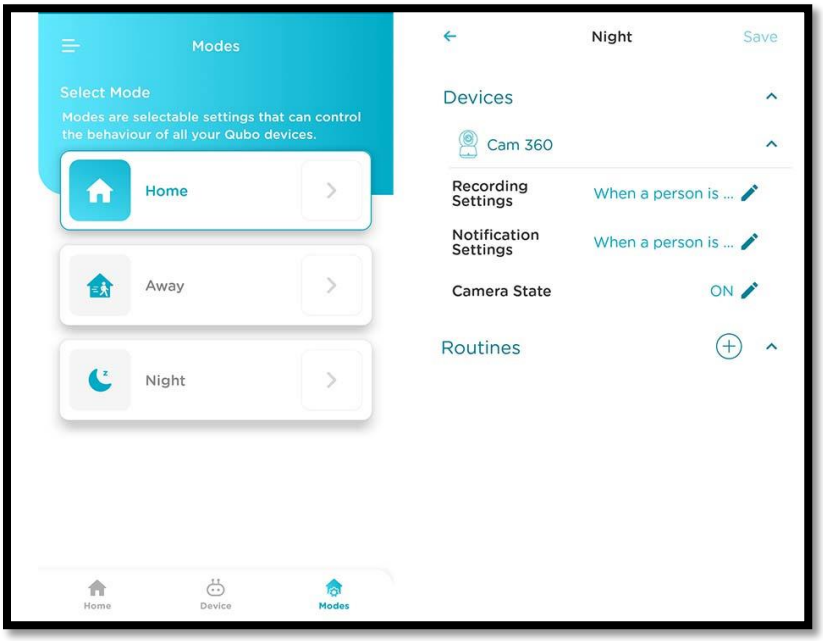
Disadvantages:

- Expensive when compared to other cameras.
- Can be hacked, opening your network for additional vulnerabilities.
- Cannot use mobile data as a connection type.
- Shiny objects for potential criminals.

Cost

- The cost differs according to the hardware components and the software specifications used in the software. Generally it can cost approximately INR.20000 to INR 25000 and it was designed according to waterfall model.

Some of the pictures related to video doorbell



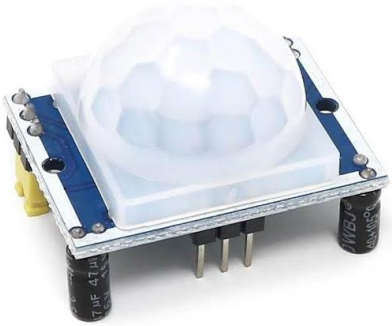
Hardware component:

Doorbell

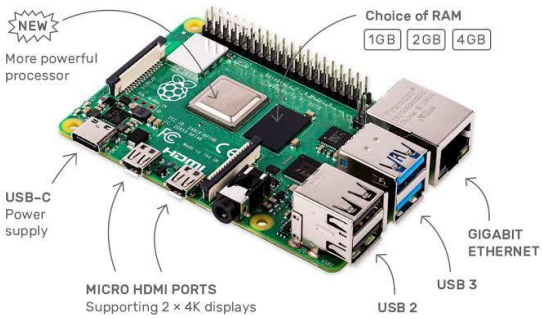
Chime

SD card

Microphone and Speakers



PIR sensor



Raspberry pi

video camera

2. Organize and play games to understand the agile process like, morning wake up game

Why this agile games are played in the team

- To refresh the employees
- This game is played to check the coordination of the team members
- To check the time complexity of the team. Whether the team members are do their work as soon as possible
- The team members can think the new, new ideas to improve their skills

Agile process model" refers to a software development approach based on iterative development. Agile methods break tasks into smaller iterations, or parts do not directly involve long term planning. The project scope and requirements are laid down at the beginning of the development process.

The Agile process contain these games

- The Marshmallow Challenge
- White elephant sizing
- Easter egg

1. The Marshmallow Challenge:

Build the tallest free-standing structure in just 18 minutes using no more than 20 sticks of spaghetti, one yard of tape, one yard of string, and one marshmallow. The marshmallow must be on top and cannot be deformed to hold it in place.

Requirements:

20 spaghetti

5 marshmallow

String

Tape

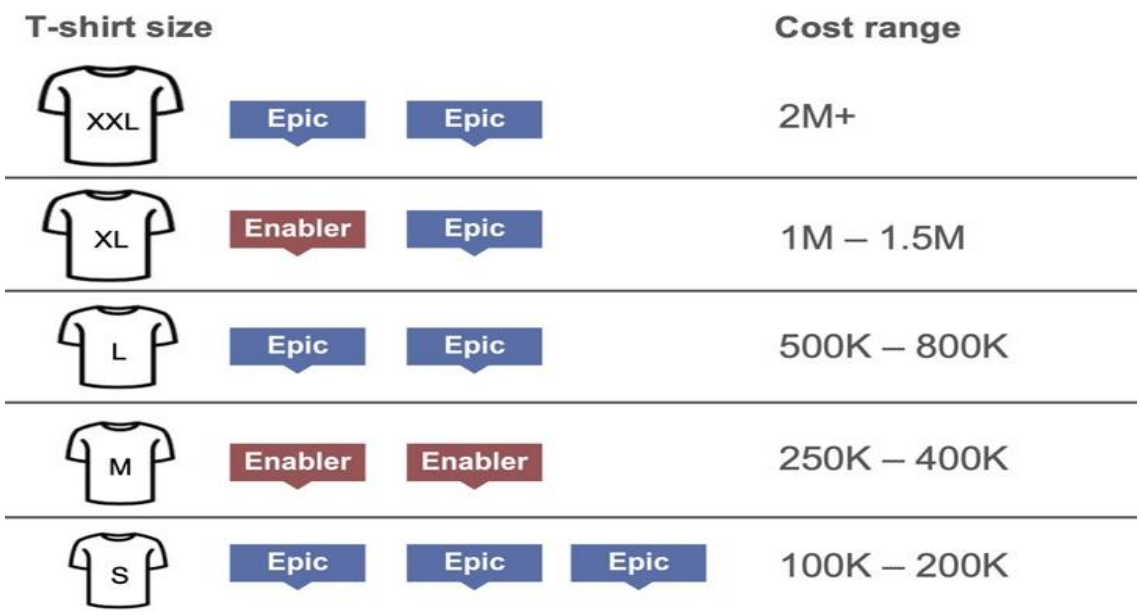
Scissors

2. White Elephant Sizing

- Agile teams need to estimate the size of their stories or product backlog items. The goal of the **White Elephant Game** is to get a quick estimate of the relative size of an agile project and the size of the individual stories before the project starts. It gives opportunity to everyone for their voices are heard, and everyone contributes equally. Estimation is a key component of **project realization.**
- A board (whiteboard or White paper chart or something like that) – divided into 5 columns(XS, S, M, L, XL) or divide it into 3 (S,M.L) columns or start with three columns and as per the need for more granularity add additional columns or divided by Fibonacci Sequence for estimation 1, 2, 3, 5, 8…
- Timer or stopwatch
- A set of prepared user stories – Print out/Write down all Product Backlog Items or user stories on separate cards. It can be just the summary or summary with brief description of user stories which is enough for the team to understand.

Requirements:

1. A set of cards
2. Tape of Sticky notes



3. Easter egg:

Paper Easter egg Ornaments

Bring on the Easter celebrations! Create these simple paper Easter eggs for the perfect Easter activity this season. These have to be the healthiest Easter eggs around! Make your own paper Easter egg ornaments to decorate at home or in the classroom. Perfect to use them to hang outside for the Easter egg hunt.

Requirements:

A4 sheet

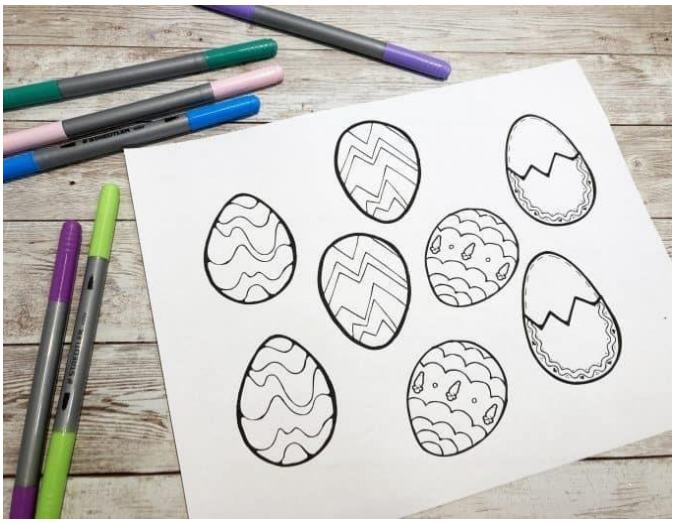
Colored markers

Scissors

Pencil

Rubber

STEP 1: Dram the egg on the sheet how much you can possible



Step 2: Design the eggs

STEP 3: Color in the Easter eggs with markers.

Step 4: Cut the Easter egg according to the egg shape

Consideration of winner

Which team has done more eggs and design the egg uniquely that team became the winner

3. Create JIRA (similar tool) account and learn interface

Jira Software

Jira Software is part of a product family that helps teams of all kinds to manage their jobs. Jira was originally designed as a tracker for problems and bugs. Today, however, Jira has become a powerful work management tool for all types of applications, from requirements and test case management to agile software. Jira Software is an agile project management tool that supports any agile methodology, be it scrum, Kanban, or your own unique flavor. From agile boards, backlogs, roadmaps, reports, to integrations and add-ons you can plan, track, and manage all your agile software development projects from a single tool.

Jira Features:

- JQL (Jira Query Language).
- Creates advanced Dashboards.
- Add-ons allows customized features, unique, design.
- Reports.

1. Creating an Account of Jira:

- Open browser and Search for Jira Atlassian Log in page
- Sign in with your Google account and Continue as Your "GMAIL"
- Click on Jira Software.(reference **FIG:1**)
- New page and click on Get it free
- Click on Next(**FIG:2**)
- Give a name to your website and click on Agree. (**FIG:3)**
- Skip the 3 Questions. Then Setup Jira account.
- Give a name to your Project and Select the template you want to choose/skip.
- You can connect your Jira software to your existing account like Slack, Microsoft Team, GitHub, GitLab, Zendesk, etc... You can it and do it later.

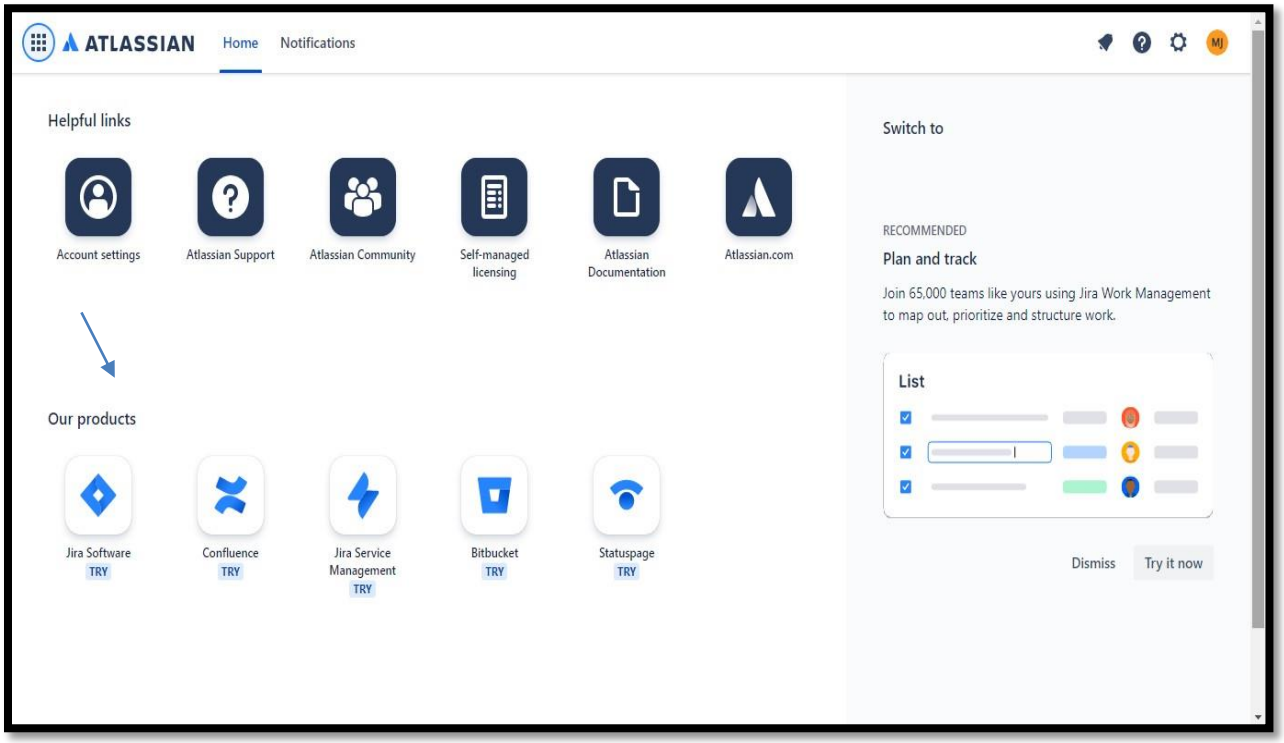

ATLASSIAN
Home
Notifications
Helpful links
Account settings
Atlassian Support
Atlassian Community
Self-managed licensing
Atlassian Documentation
Atlassian.com
Our products
Jira Software
TRY
Confluence
TRY
Jira Service Management
TRY
Bitbucket
TRY
Statuspage
TRY
Switch to
RECOMMENDED
Plan and track
Join 65,000 teams like yours using Jira Work Management to map out, prioritize and structure work.
List
Dismiss
Try it now

FIG: 1

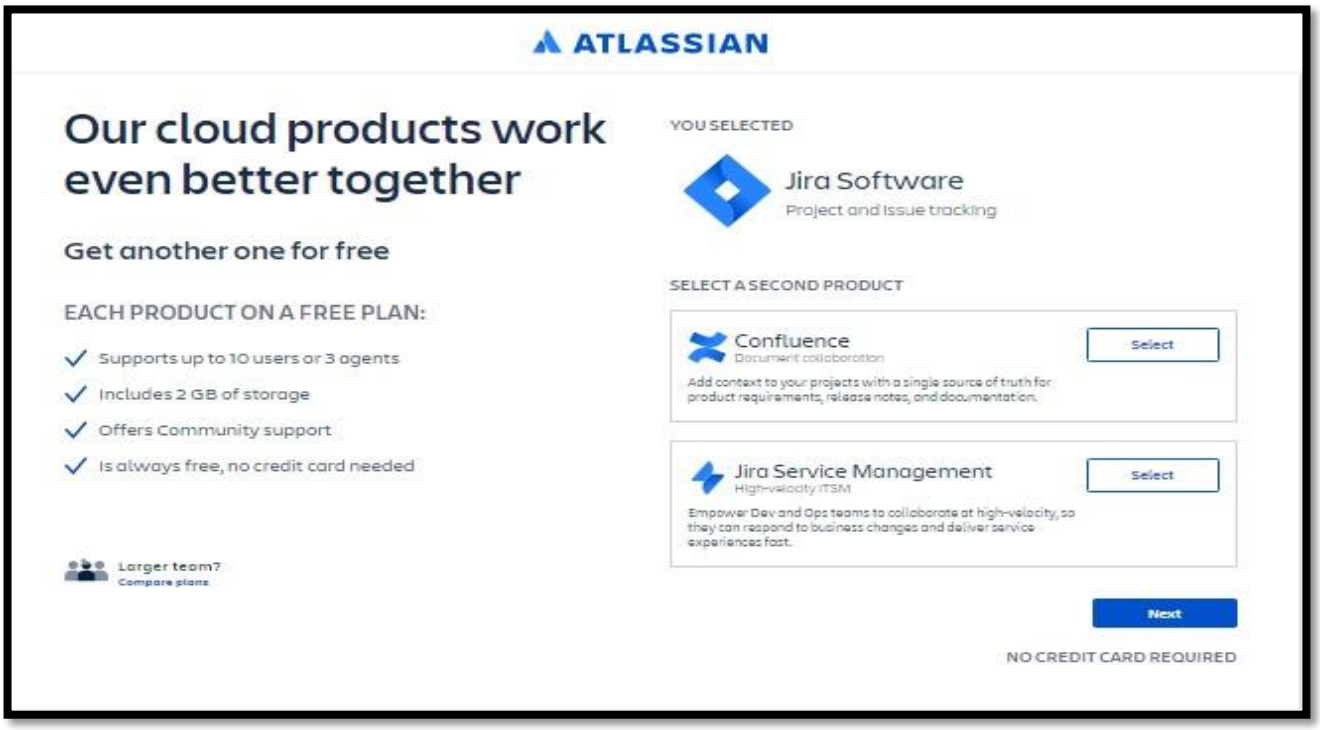

ATLASSIAN
Our cloud products work even better together
Get another one for free
EACH PRODUCT ON A FREE PLAN:
Supports up to 10 users or 3 agents
Includes 2 GB of storage
Offers Community support
Is always free, no credit card needed
Larger team?
Compare plans
YOU SELECTED
Jira Software
Project and issue tracking
SELECT A SECOND PRODUCT
Confluence
Document collaboration
Select
Add context to your projects with a single source of truth for product requirements, release notes, and documentation.
Jira Service Management
High-velocity ITSM
Select
Empower Dev and Ops teams to collaborate at high-velocity, so they can respond to business changes and deliver service experiences fast.
Next
NO CREDIT CARD REQUIRED

FIG: 2

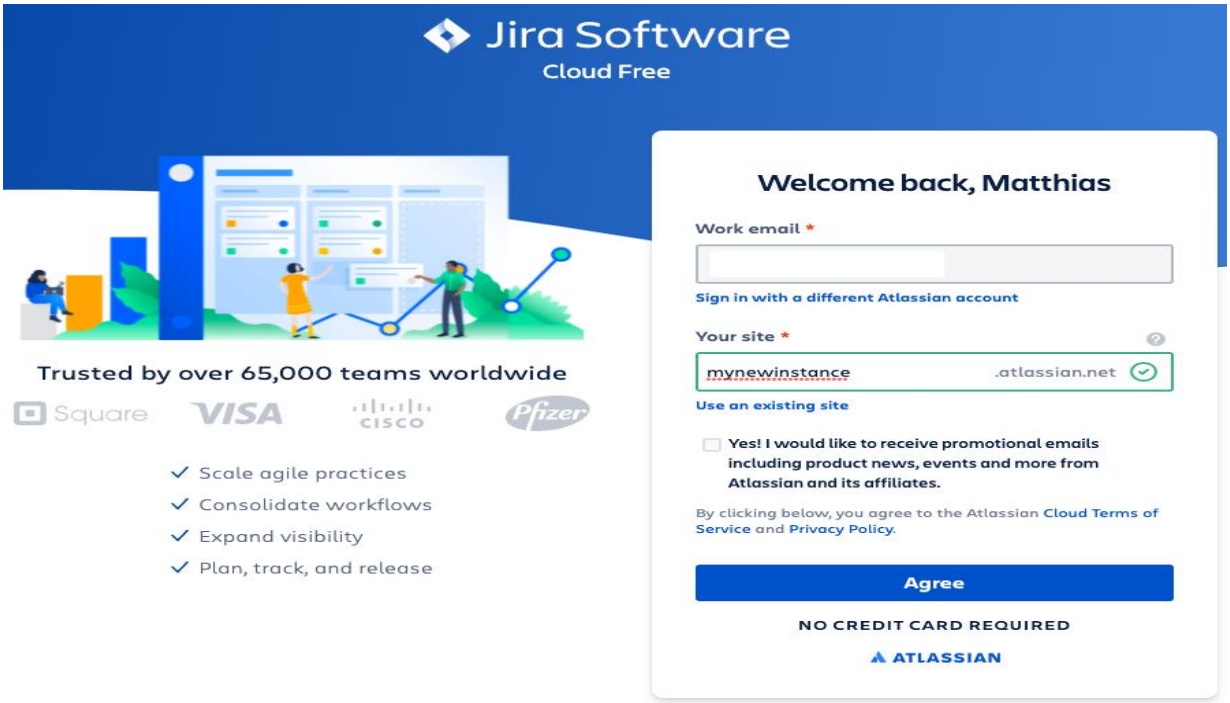
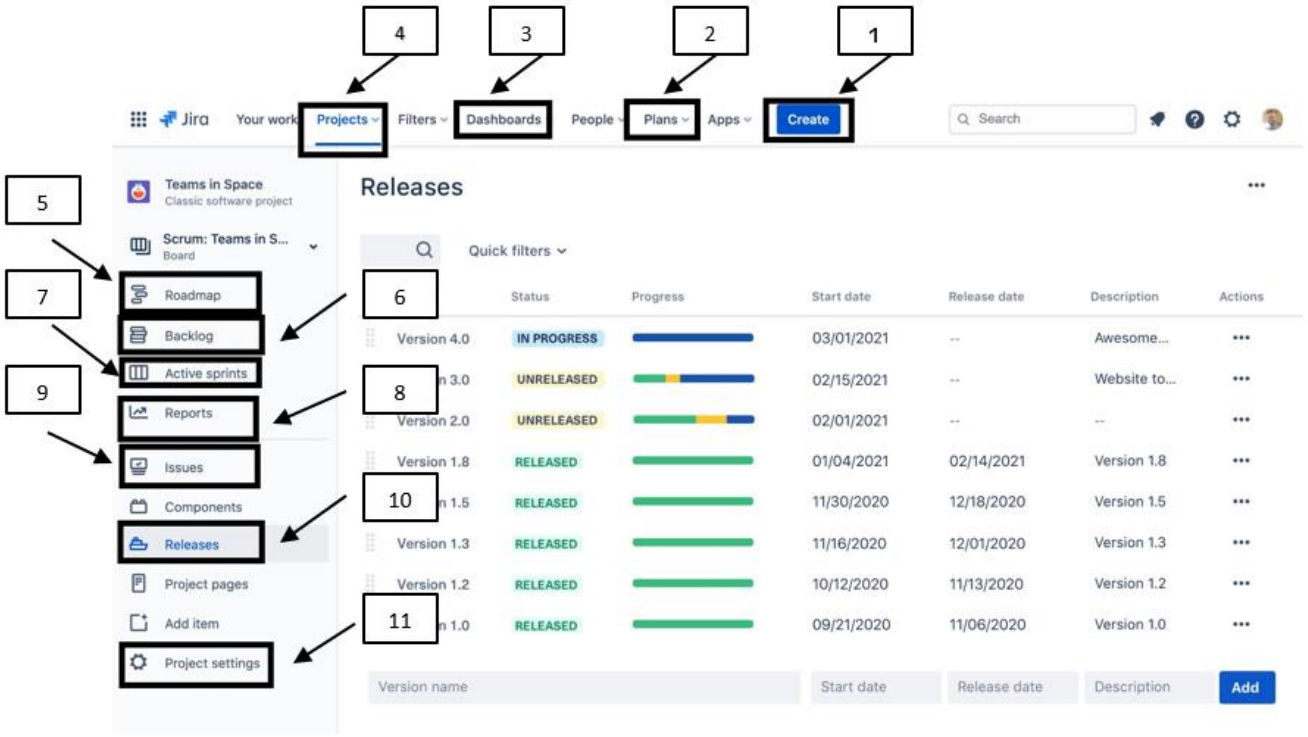


FIG: 3

- You can invite your teammates by typing their Email address.
- You can now have an account in Jira Software Tool.

4. Interface of Jira Software:



1. Create:

You can either create a new epic in agile or either use the issue you have created in normal JIRA board.

2. Plan:

Plan mode displays all the user stories created for the project

3. Dashboard:

Dashboard is the main display you see when you log in to Jira. You can create multiple dashboards from different projects, or multiple dashboards for one massive overview of all the work you're involved with.

4. Project:

A project is a simply collection of issues (stories, bugs, tasks, etc.). You would typically use a project to represent the development work for a product, project, or service in Jira software.

5. Roadmap:

Roadmap in Jira Software are team-level roadmap useful for planning large pieces of work several months in advance at the Epic level within a single project.

6. Backlog:

The backlog view lists issues that your team plans to work on (in the backlog or Sprint lists), as well as the issues currently on your team's board (in the board list).

7. Active Sprint:

The Active sprints of a Scrum board displays the issues that your team is currently working on. You can create and update issues, and drag and drop issues to transition them through a workflow.

8. Reports:

Reports in Jira software offers critical insights for scrum, Kanban, and any agile methodology in between sprint report, burn down chart, release burn down, velocity chart, control charts etc.

9. Issues:

A Jira issue represents a single piece of work in a project.

10. Releases:

Releases represent points in time for your project. They can be used to schedule how features are rolled out to your customers.

11. Project settings:

Once you have created a project, you can configure it to suit the needs of your team or to adapt to a new piece of work.

WEEK-3

1. Play and act agile ceremonies

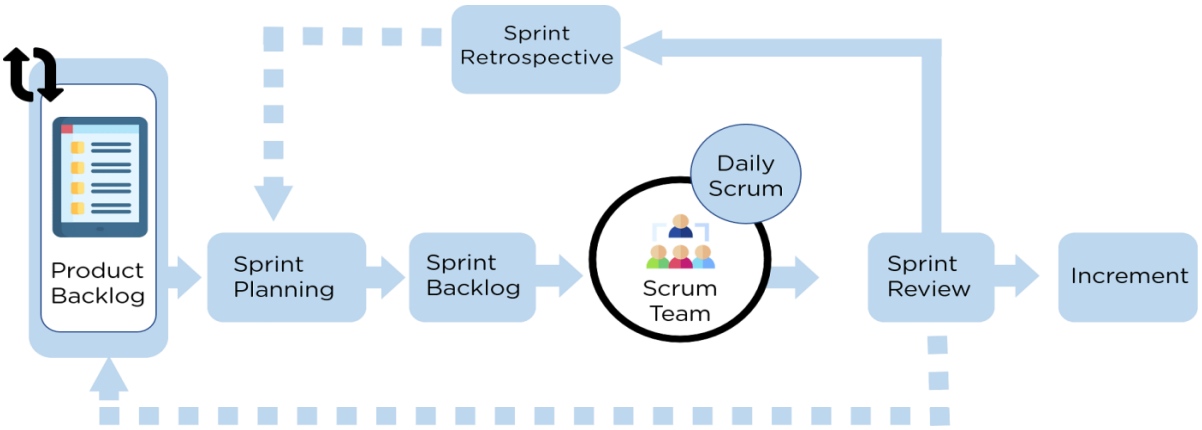
Asana

Asana is a workplace management dashboard that helps streamline communication across companies and teams. Asana is customizable, and allows users to break down projects into tasks and set clear goals for teams. Asana also has integration with hundreds of other apps that businesses use, like Google Drive and outlook.Asana is a software-as-a-service platform designed to improve team collaboration and work management. It helps teams manage projects and tasks in one tool. Teams can create projects, assign work to teammates, specify deadlines, and communicate about tasks directly in Asana.

Features of Asana:

- Mobile
- Work, project and task management
- Communication
- Views
- Reporting
- Team management
- Top integrations

Agile ceremonies



Product Backlog

The first step is to create a list of tasks that need to be completed to achieve the requirements of the stakeholders/ clients.

Sprint Planning

During this stage, the team determines the tasks from the product backlog that they want to work towards completing during the sprint

Sprint Backlog

The tasks discussed during the sprint planning are added to the sprint backlog.

Scrum Team

The Scrum team (usually consists of 5 to 9 members) works on the tasks mentioned in the sprint backlog.

Daily Scrum

The team will have daily Scrum meetings, which are 15-minute sessions, during which the team members synchronize their activities and plan their activities for the day.

Sprint Review:

After a sprint is completed, a sprint review takes place. Involving the team, scrum master, product owner, and stakeholders, the sprint review shows what the team accomplished during the sprint. During the meeting, questions are asked, observations are made, feedback and suggestions are also given

Product Backlog

At this point, the product owner presents the product backlogs to the stakeholders for suggestions for tasks that can be added in the upcoming sprints, and so on.

Sprint Retrospective

After the sprint review, the sprint retrospective takes place. During this meeting, past mistakes, potential issues, and new ways to handle them are identified. Data from here is incorporated when planning the new sprint.

Increment

A workable output is provided to the stakeholders.

2. Play different agile roles

Product owner, business analyst

The two key pillars for a successful agile project are the Product Owner (PO) and the Business Analyst.

Product owner:

A product owner is a role on a Scrum team that is responsible for the project's outcome.

The product owner seeks to maximize a product's value by managing and making product best and effective

Roles and responsibility of a product owner:

- **Defining the vision: The** agile product owner is the person on the product development team, using their high-level perspective to define goals and create a vision for development projects.
- **Managing the product backlog:** One of the most important responsibilities for a scrum product owner is managing the product backlog.
- **Prioritizing needs:** Another key role of the product owner is to prioritize needs. In other words, they must prioritize the triangle of scope, budget, and time, weighing priorities according to the needs and objectives of stakeholders.
- **Overseeing development stages**: With the vision, strategy, and product priorities set, the product owner should spend a significant amount of time overseeing the actual development of the product. They are a key player throughout each event, including planning, refinement, review, and sprint

Soft skills needed to a product owner:

- Communication
- Technical Skills.
- Decision-Making.

- Project Management Skill.
- Collaboration.

Business analyst:

Agile business analyst is about increasing the delivery of business value to the stakeholders of the project or product being developed.

Role of a business analyst in agile:

- Maintain the focus on business value
- Identify missing requirements
- Coach the Product Owner (on work)
- Coach the development team (on business domain)
- Help define acceptance criteria before work starts
- Solving Business Problems
- Looking for Savings and Efficiencies
- Focusing on Business Development
- Performance Analysis
- Competitor Analysis

Soft skills of a business analyst are:

1. **Analytical Thinking and Problem Solving**: solving, creative thinking, systems thinking, learning and decision making
2. **Behavioral Characteristics**: ethics, personal organization and trustworthiness
3. **Business Knowledge**: business principles & practice, industry knowledge, organization knowledge and solution knowledge
4. **Communication Skills:** oral communication, written communication and teaching Interaction Skills facilitation & negotiation, leadership & influencing and teamwork

5. Software Applications: general purpose applications and specialized applications

WEEK-4

1. Case study to understand the importance of risk management and mitigation of risk

Risk management and Risk mitigation case study on Tesla:

Introduction: Tesla is American-based Company headquartered in Palo Alto, California. It was founded in 2003 by group of engineers the company specializes in Designing, developing and manufacturing high performing E-Vehicle (Electronic vehicle) with the goal of emission-free future through the development of clean energy products. And the company effectively researching on efficient, high performing, safe and commercially viable automobiles.

Risk areas and types:

Supply Chain Risk:

- Supply chain Disruption:
  - Raw materials
  - Battery cells
  - Electronics
- Price volatilities:
  - Price variation in steal and copper in market.

Technological Risk:

- Cyber Security:
  - Vulnerable
  - Hacking
- Innovation Risk:

- High turnover
- Development delay

Market Risk:

- Interest Rates:
  - Increased rates
  - Increased debts
- Foreign currency risk:
  - Multiple currencies
  - Exchange rate fluctuations.

Business/Industry Risk:

- E-vehicle:
  - Low adoption rate
  - Competitive risks
  - Production delays
- Foreign currency risk:

International Operational Risk:

- Regulatory:
  - New trade policies.
- Labour relations:
  - International labour laws.

Risk mitigation:

Supply Chain Risk:

- Recruiting multiple suppliers.

Technological Risk:

- Enforcement of strict security policies.
- Integration of cloud computing.
- Attracting and retaining innovative employees.

Market Risk:

- Establishing fully functional subsidiaries in high demand countries.
- Selling long term bonds.

Business/Industry:

- More investments in advertisements and promotion campaigns.
- Enhancing procurement operations.

International operations:

- Enacting policies to promote compliance.
- Strict compliance with labour laws

Important Problems and Potential Solutions:

Problem: Data security and privacy is the most important technological risk.

The five major reasons:

- The new program that allows consumer to receive regular system updates vulnerable to cyber-criminals.
- Modern vehicles have wireless connections that hackers can use to access the company system remotely.
- Inconsistent and unsecure wireless connection.
- Increasing Hackers capacity to bypass security protocols.
- Customer and company data at risk.

Solution: Cloud computing and more investments in employee training to foster data security.

WEEK-5

1. Conduct warmup activities to Ignite Design Thinking

a. Word search:

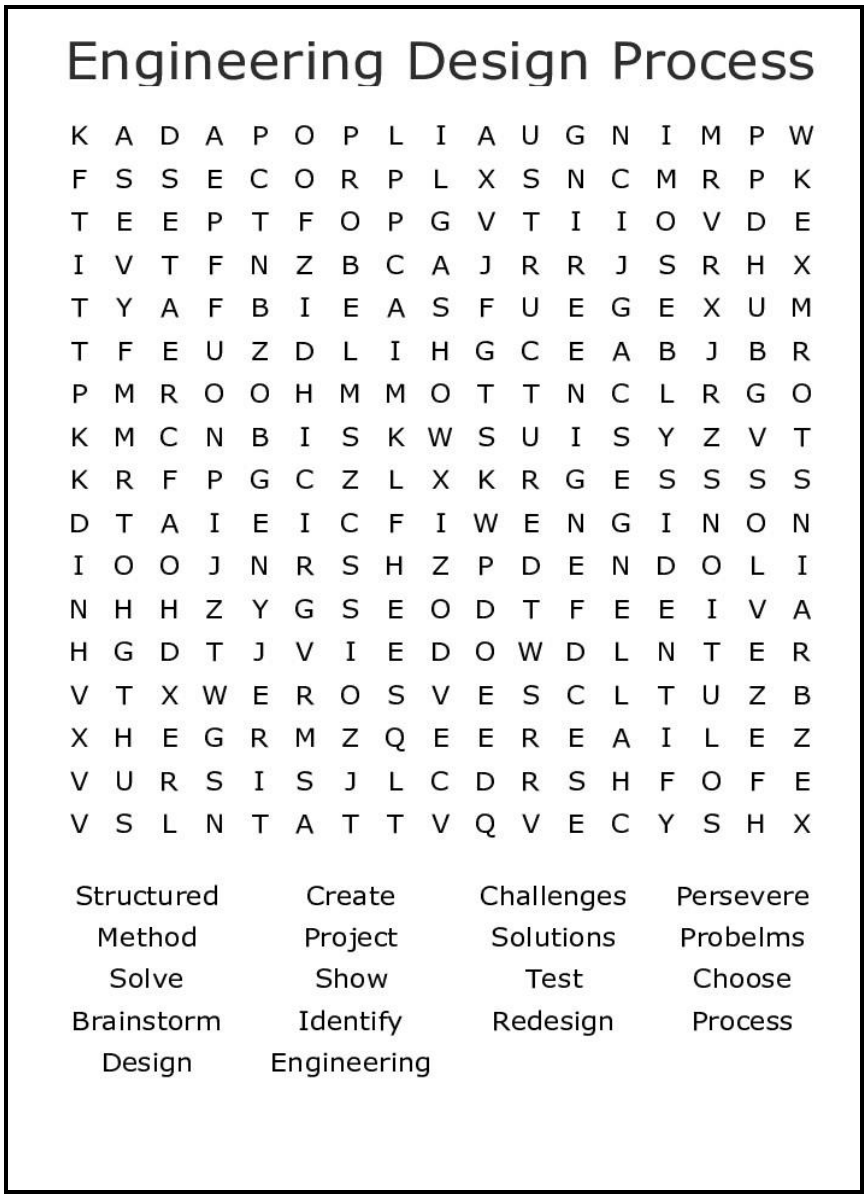
Requirements:

- Word search puzzle
- Marker pen, pen or pencil

How to do the activity:

- Mark the given words in the puzzle. In 5 minutes.

Winner: The one who mark the maximum words in 5 minutes.



b. Paper boat and software's:

Requirements:

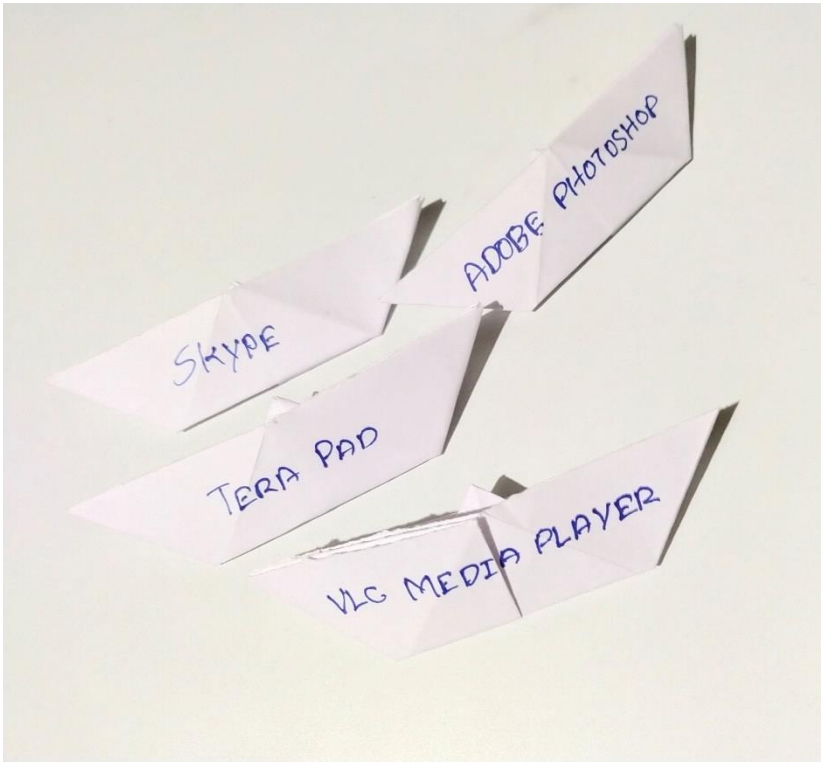
- 3 A4 sheets
- Pen or pencils

How to do the activity:

- Make maximum boats using given papers.
- Write the software names on boats on given time.

Note: Do not write more than one software name on boat. And repeated software names are not considered

Winner: The one who writes maximum number of software names on the boat in 5 minutes.



2. Organize and conduct design thinking exercises and games

1. Find the differences game :

Requirements:

- Two similar images with some differences
- To mark pen, pencil or marker.

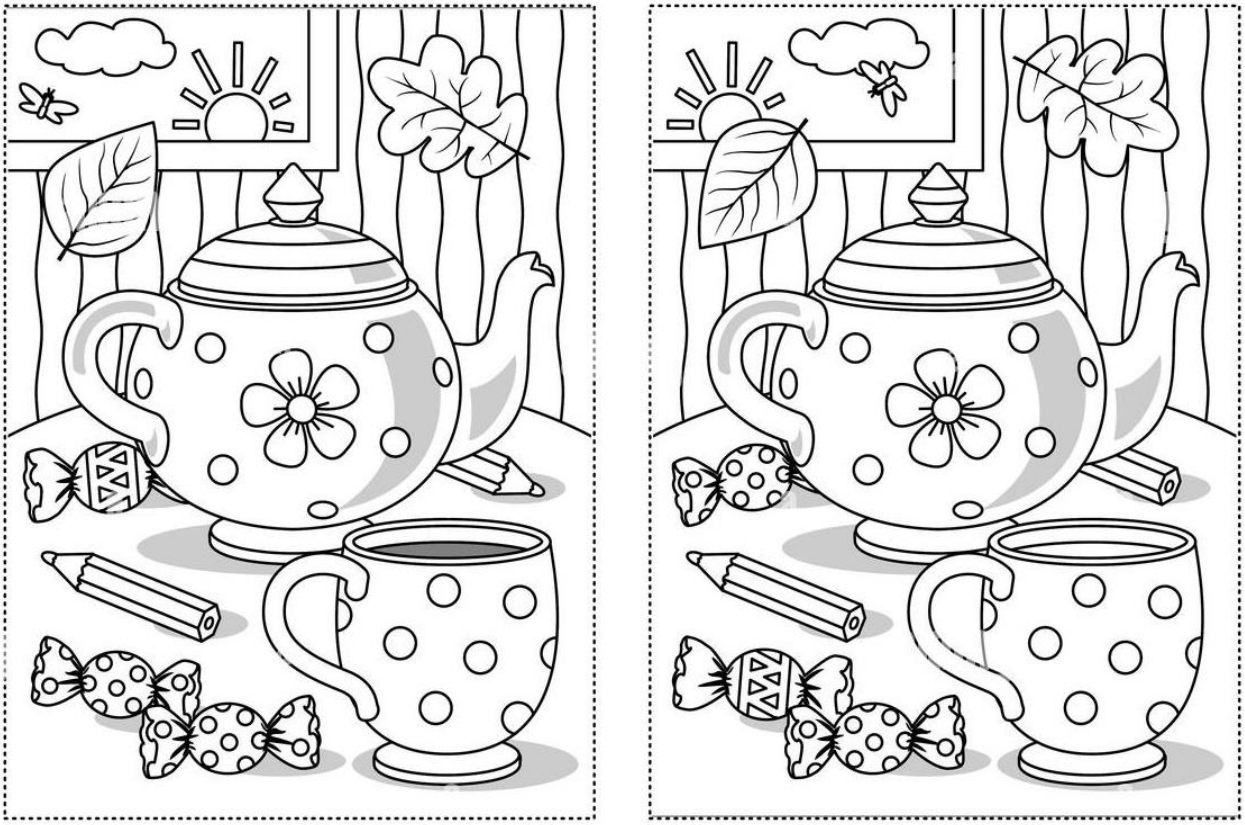
How to play the game:

- Find the differences in 60 seconds.
- Mark the differences any one of the image.

Note: if you marked the differences in both images then it will be considered as disqualified.

Winner: The one who finds the maximum differences in given time or finds first.

Find 10 differences.



2. Word build.

Requirements:

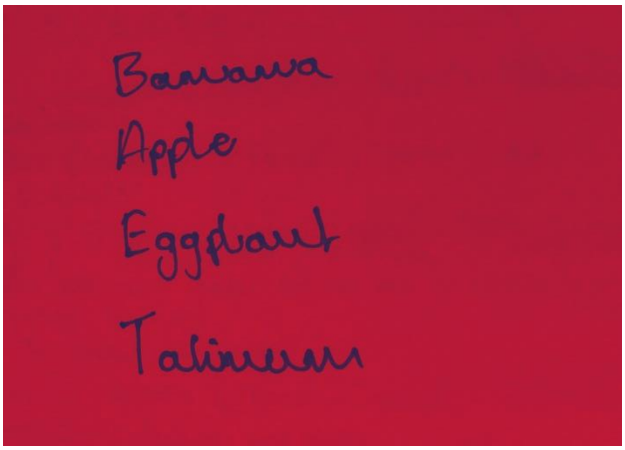
- Two sticky notes.
- Pen or pencil

How to play the game:

- Take the word given by the judge. Using the last letter of that given word you have write the another word within the categories given by judge.
- Write the maximum words as you can write using the rule above mentioned in 2 minutes.

Note: repeated words and words that does not belongs to a given categories are not considered

Winner: The one who writes the maximum words in the given time.



3. Cup and Rubber band game:

Requirements:

- 36 cups (water drinking cups).
- Rubber bands
- 1 A4 sheet.
- One table (or any flat surface which is above from the ground)

How to play the game:

- Build the pyramid using the given cups completely.
- Make the 3 bullets using the given A4 sheet.
- Stand 4 meter away from the pyramid.
- Demolish the pyramid using the paper bullets and rubber band by shooting at the pyramid in 7 minutes. References in fig 2

Note:

- Only one person should be shoot at a time
- Using more than 3 paper bullets is prohibited.
- Only cups lying on the ground will be considered.
- Unfinished pyramid is not qualified to demolish.

Winner: one who fells the maximum cups to ground in given time (if more than one team demolishes the complete pyramid in given time then the shortest time taken to demolish the pyramid will be considered as winner)

Fig 1

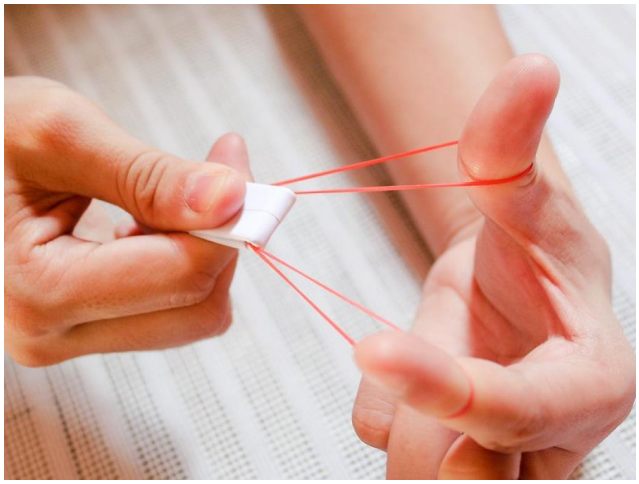


Fig 2

WEEK-6

1. Organize role play for requirement activities

Zomato: Zomato is an Indian multinational restaurant aggregator and food delivery company founded by Deepinder Goyal and Pankaj Chaddah in 2008. Zomato provides information, menus and user-reviews of restaurants as well as food delivery options from partner restaurants in select cities.

Requirements:

- Restaurants.
- Delivery boys.

Application requirements:

- Simple registration using phone number or Gmail.
- Search bar.
- Menu for various restaurants and various dishes.
- Live location tracker.
- Various payment options.
- Delivery time estimation.
- Order tracker.
- Reviews and rates.
- Attractive design.

Role play for Zomato:

Friend 1: Hey bro come let's have a tiffin on MTR.

Friend 2: Sorry! I can't come with you.

Friend 1: why bro.

Friend 2: In MTR there will a lot of people we don't get table so easily.

Friend 1: Don't worry man we can book a table on online.

Friend 2: That's great bro, hurry up and book now.

Friend 1: ok I will right now using Zomato app.

India's #1 Food Delivery and Dining App

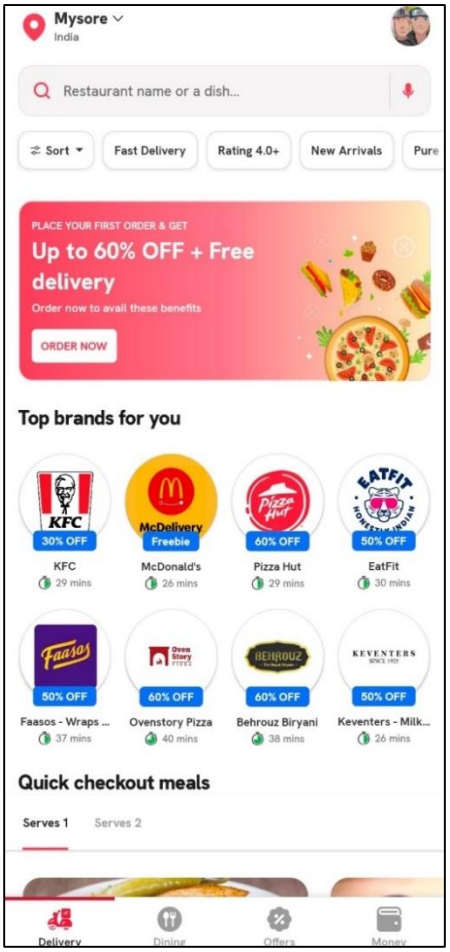
Log in or sign up

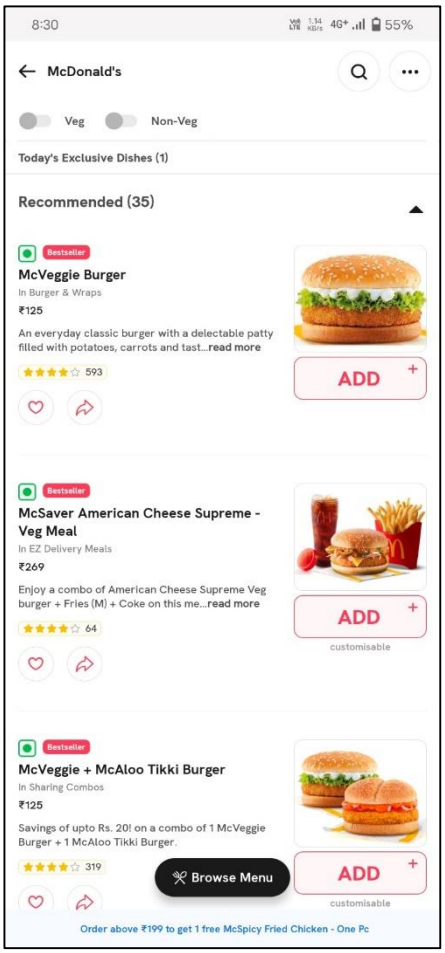
+91 Enter Phone Number

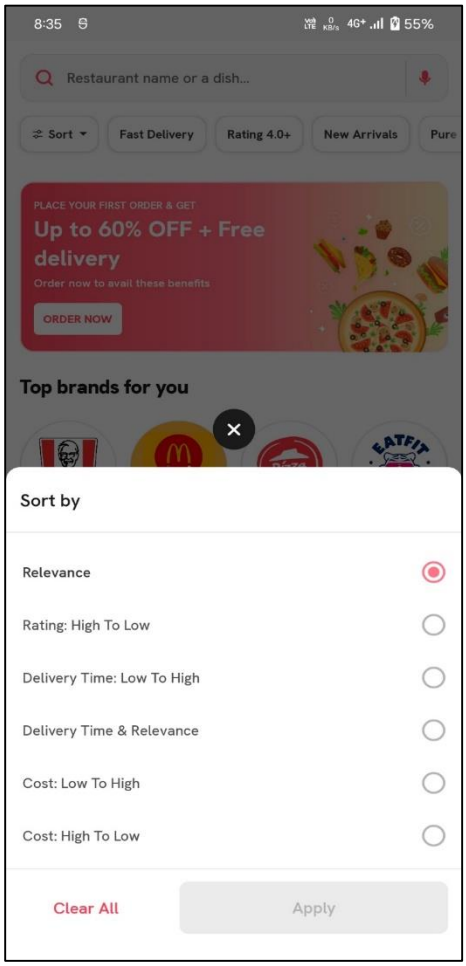
Continue

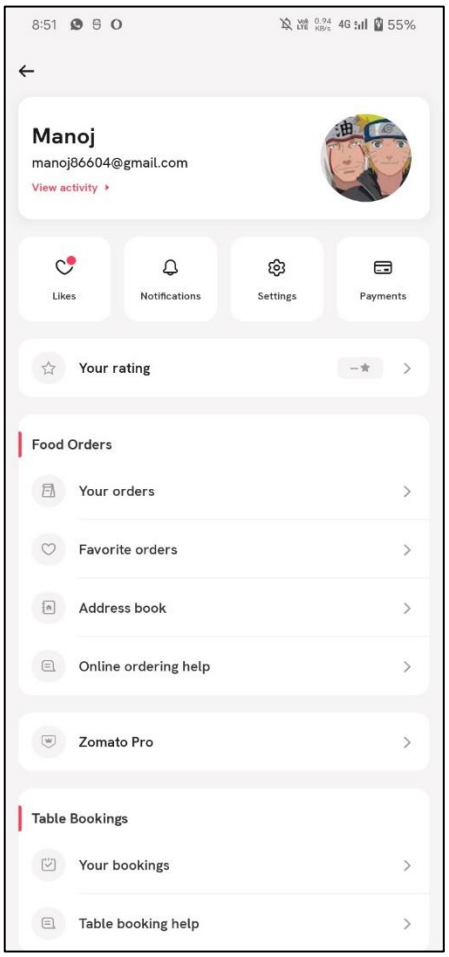
or

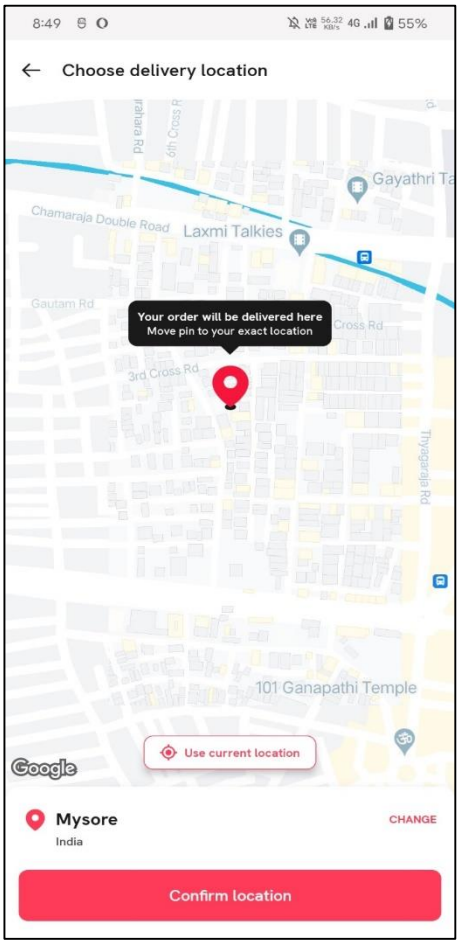
By continuing, you agree to our Terms of Service Privacy Policy Content Policy











2. Identify a problem and prepare requirement document or Epics and user stories:

➢ Problems faced by Zomato application:

- **Inconsistent Food Quality:**

  It becomes highly challenging for the delivery partners to deliver the food with the extreme quality at the doorsteps far away from the place it is being prepared.

- **Compatibility Problems with Certain Devices:**

  The idea of application should be equal for all devices. In which are easy to download on one and refuse on the other version. An essential factor for the companies is to make sure that working efficiency is acceptable. Also, they are compatible with android and iOS (operating system) both. If any app lacks this, it might face major problems in getting successful. To avoid this in the long term. The size resolution, dimensions, and pixels should be taken care of for each application.

- **Selecting Out-dated Technology:**

  Developing the right and valuable app can be challenging at times. The worst decision is to go for the old development technology. It is mandatory to make sure that the application is working fine with the other devices at any cost. There are thousands of mobile applications working at higher frequency levels. Match the efficiency with those to get the best results. Develop applications that are unique, able to function everywhere, and give good performance.

- **Appointing Inappropriate Developers in Team:**

  Just like, some of one in team cannot function properly with the right rules. This has the same meaning when it comes to recruiting developers. The employee or company answer must be familiar with the technologies.

Epic: Zomato

User Story:

1. Log in to the application.

Task:

→ Log in into the application if you don't have an account

→ Sign in if you already have an account

→ Sign in or Log in using Phone number or Gmail account

2. Order place in.

Task:

→ The location in which you want the food to be placed whether at restaurant or home

→ Current address of the customer

3. Menus

Task:

→ Veg, non- veg and desert

→ Veg: Masala dosa, bath, idli etc.

→ Non- veg: Egg rice, chicken biriyani, egg bonda etc.

4. Location tracking

Task:

→ Delivery boy should trace the customer current address

→ The customer will check whether the delivery boy is near to our address

→ Both, delivery boy and customer should on the location

5. Payment

Task:

→ Customer should have online payment like credit, debit or ATM

→ Customer can pay cash on delivery

6. Ratings and reviews

Task:

→ Customer can give their opinion by their wish

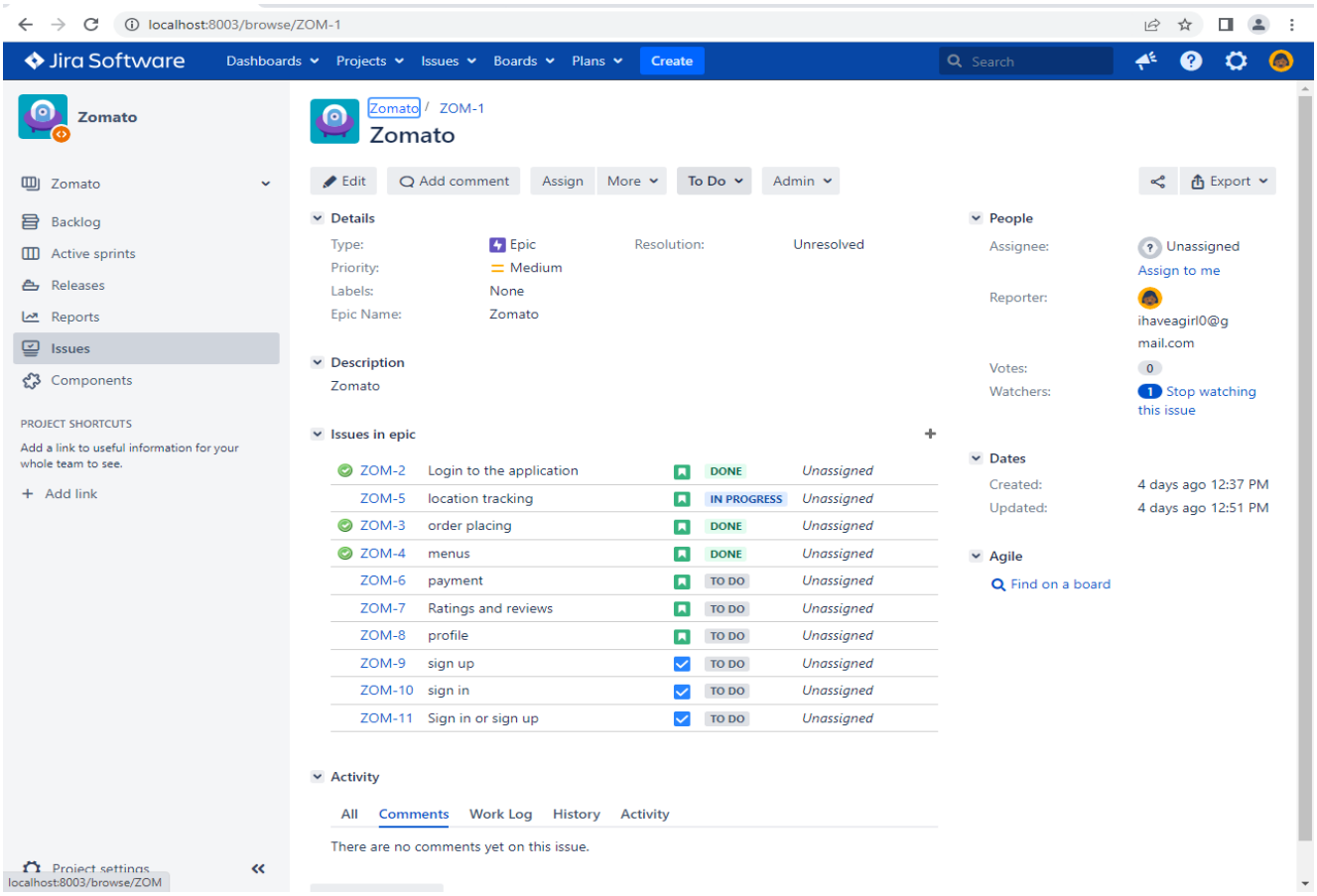
→ Whether the food is good and healthy

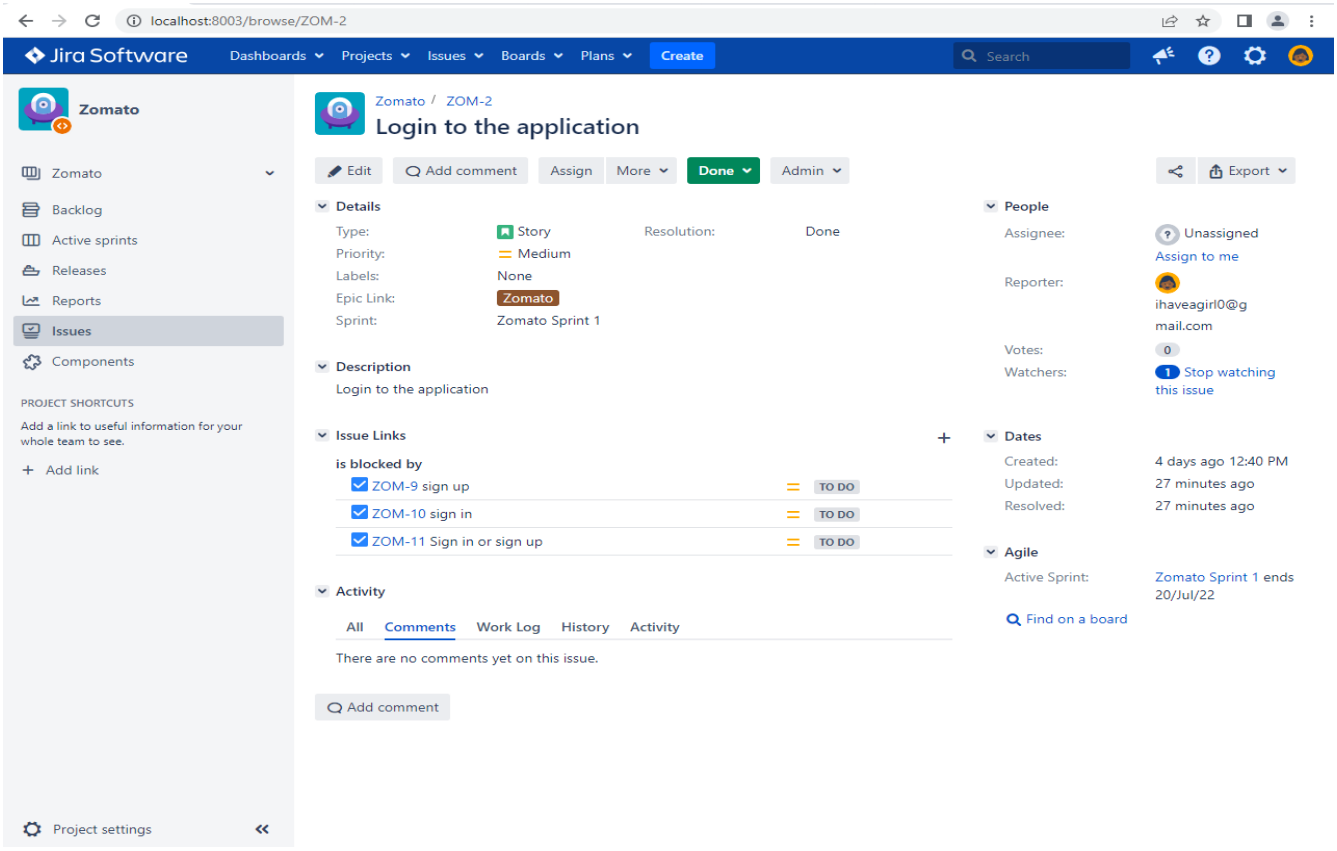
7. Profile

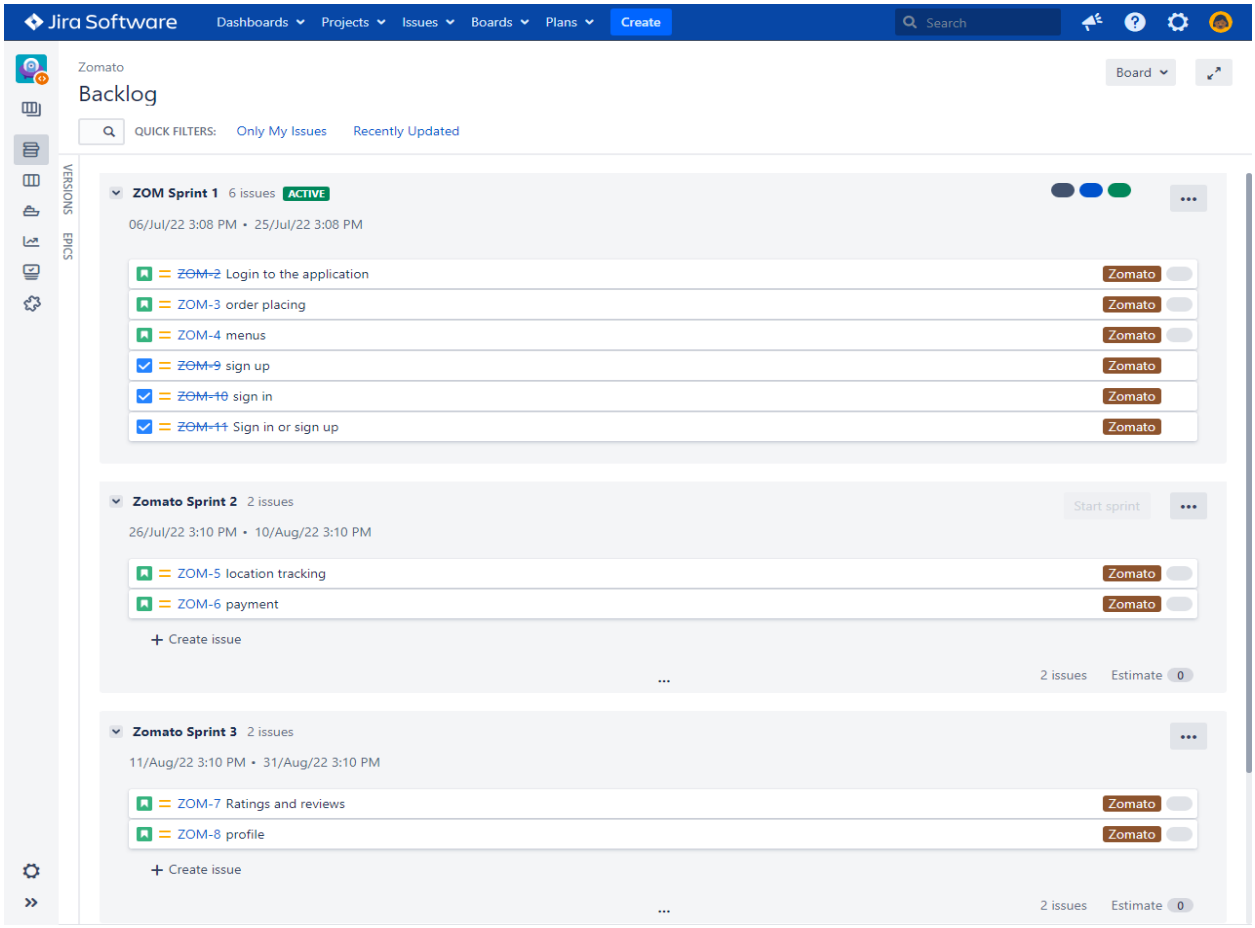
Task:

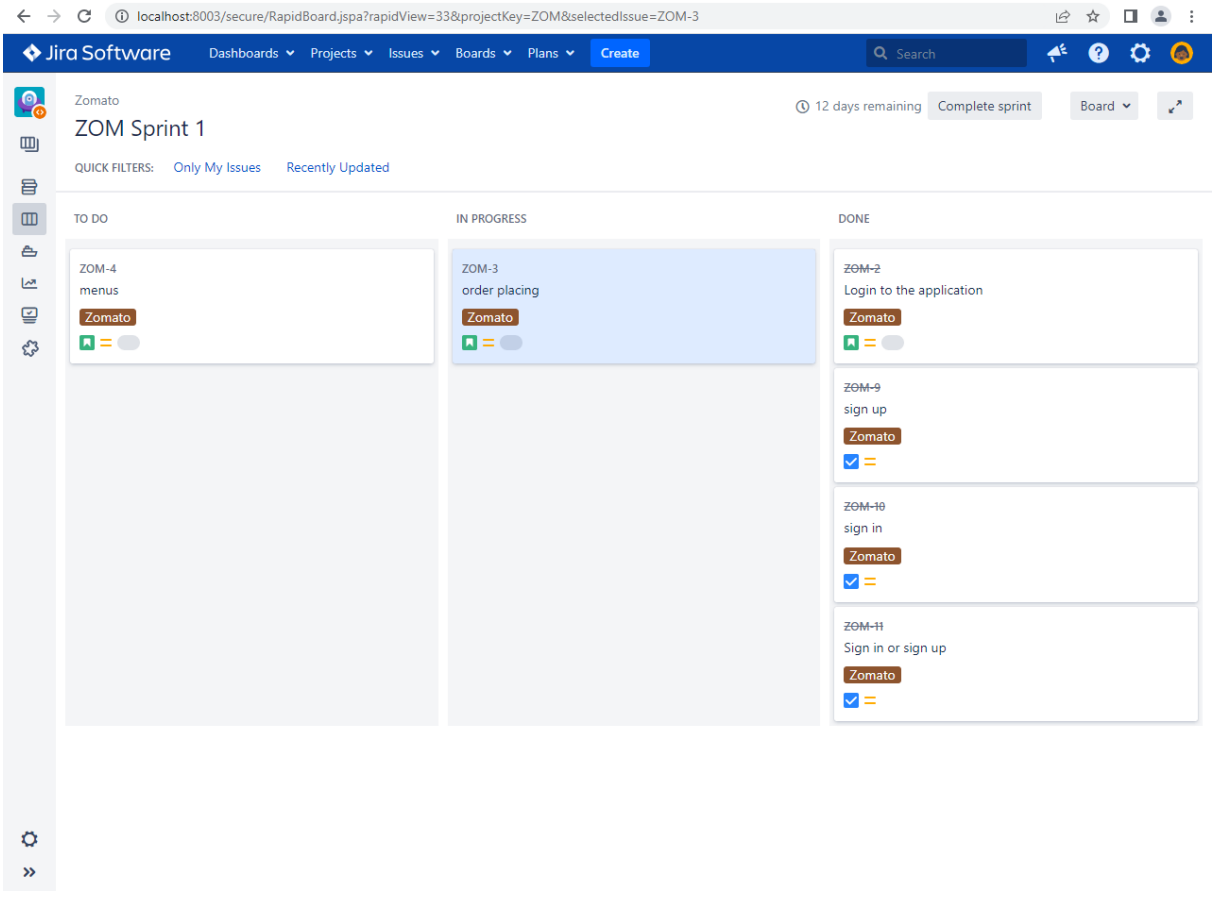
→ Every delivery boy should have their own profile for recognizing their restaurant

4. Configure JIRA for the managing the project to solve the identified problem






Jira Software
Dashboards
Projects
Issues
Boards
Plans
Create
Search
Zomato
Backlog
Board
QUICK FILTERS:
Only My Issues
Recently Updated
VERSIONS
EPICS
ZOM Sprint 1 6 issues ACTIVE
06/Jul/22 3:08 PM • 25/Jul/22 3:08 PM
ZOM-2 Login to the application
ZOM-3 order placing
ZOM-4 menus
ZOM-9 sign up
ZOM-10 sign in
ZOM-11 Sign in or sign up
Zomato
Zomato Sprint 2 2 issues
Start sprint
26/Jul/22 3:10 PM • 10/Aug/22 3:10 PM
ZOM-5 location tracking
ZOM-6 payment
Create issue
2 issues
Estimate 0
Zomato Sprint 3 2 issues
11/Aug/22 3:10 PM • 31/Aug/22 3:10 PM
ZOM-7 Ratings and reviews
ZOM-8 profile
Create issue
2 issues
Estimate 0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Dashboards
Projects
Issues
Boards
Plans
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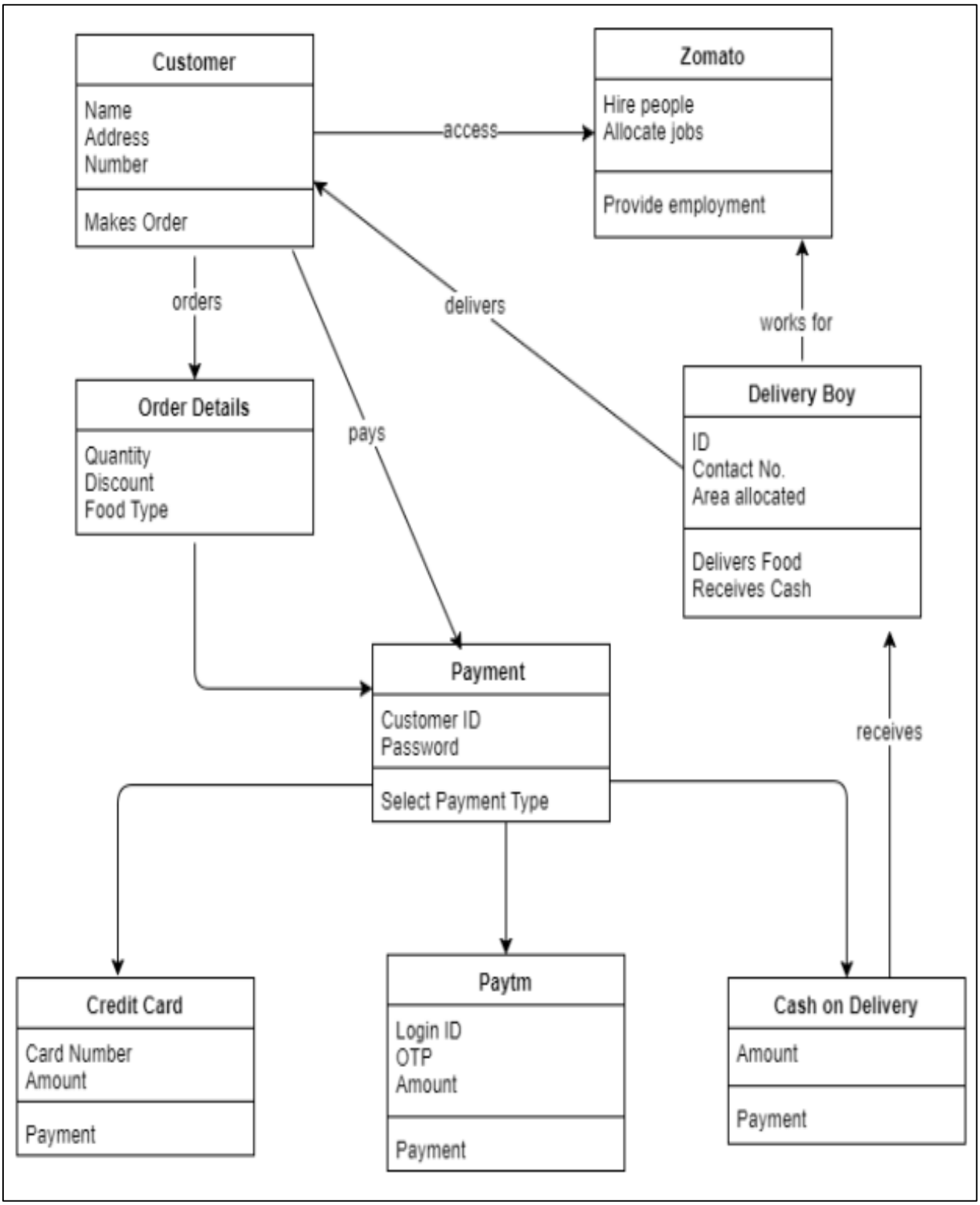
Search
Zomato
ZOM Sprint 1
12 days remaining
Complete sprint
Board
QUICK FILTERS:
Only My Issues
Recently Updated
TO DO
IN PROGRESS
DONE
ZOM-4
menus
Zomato
ZOM-3
order placing
Zomato
ZOM-2
Login to the application
Zomato
ZOM-9
sign up
Zomato
ZOM-10
sign in
Zomato
ZOM-11
Sign in or sign up
Zomato

4. Draw UML diagram for given use case

UML diagram for Zomato application:



WEEK- 7

1. Create detailed user stories for the above identified problem:

Epic: Zomato

User Stories 1: Inconsistent food quality.

- The food was may be too cold
- The food quantity is too low
- The undocumented ingredients

User stories 2: Compatibility Problems with Certain Devices

- If the user doesn’t not have certain application
- The companies is not make sure that working efficiency is acceptable

User Stories 3: Selecting out dated technology.

- Using the old version of the technology
- It is the main reason for bad performance
- It will slow down your software

User story 4: Appointing inappropriate developers in team

- That the developer does not have familiar about the technology
- The developer does not have capability to maintain the advanced technology

2. Organize and play planning poker to decide on user points.

Planning Poker is a teambuilding activity for achieving group consensus.it is used by agile software development teams to estimate how long a certain amount of work will take to complete.

Planning poker on user story:

Estimators	User process time (points)
Log in	1
Search item	2
View and select item	2
Add to cart	3
Ordering the item	2
Make payment	5
Review	1

Reasons for those above user points on estimation:

- **Log in**: A log in process has 1 user points because, it is easy process to log in the application
- **Search item:** In this process it has 2 user points because it is easy to search the items in the search bar
- **View and select items:** it has 2 user points because we can view the food and easily place the order
- **Add to cart:** We have given 3 user points because when we select the items it will be easily added to the cart
- **Ordering the item:** It has 2 user points because we can easily order the item , that have been already added to the cart
- **Make Payment**: It has 5 user points because sometime the online payment will not work properly.
- **Review:** It has 1 user points because sometime it is good and sometime it is bad.

WEEK-8

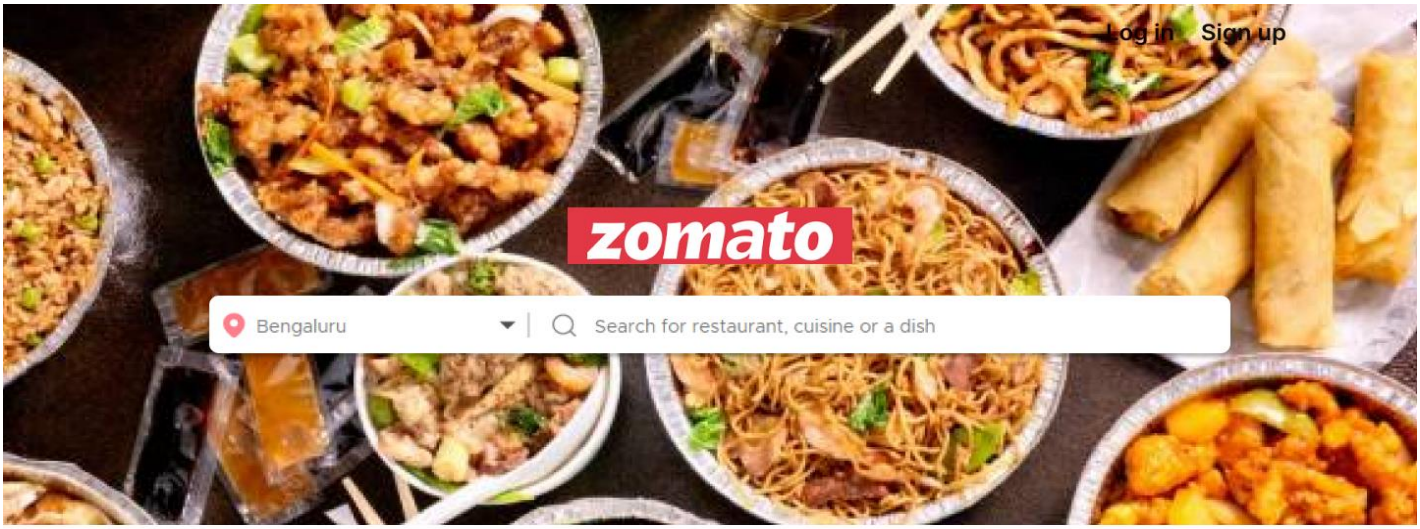
1. Create Sitemap and Wireframe for above create user stories

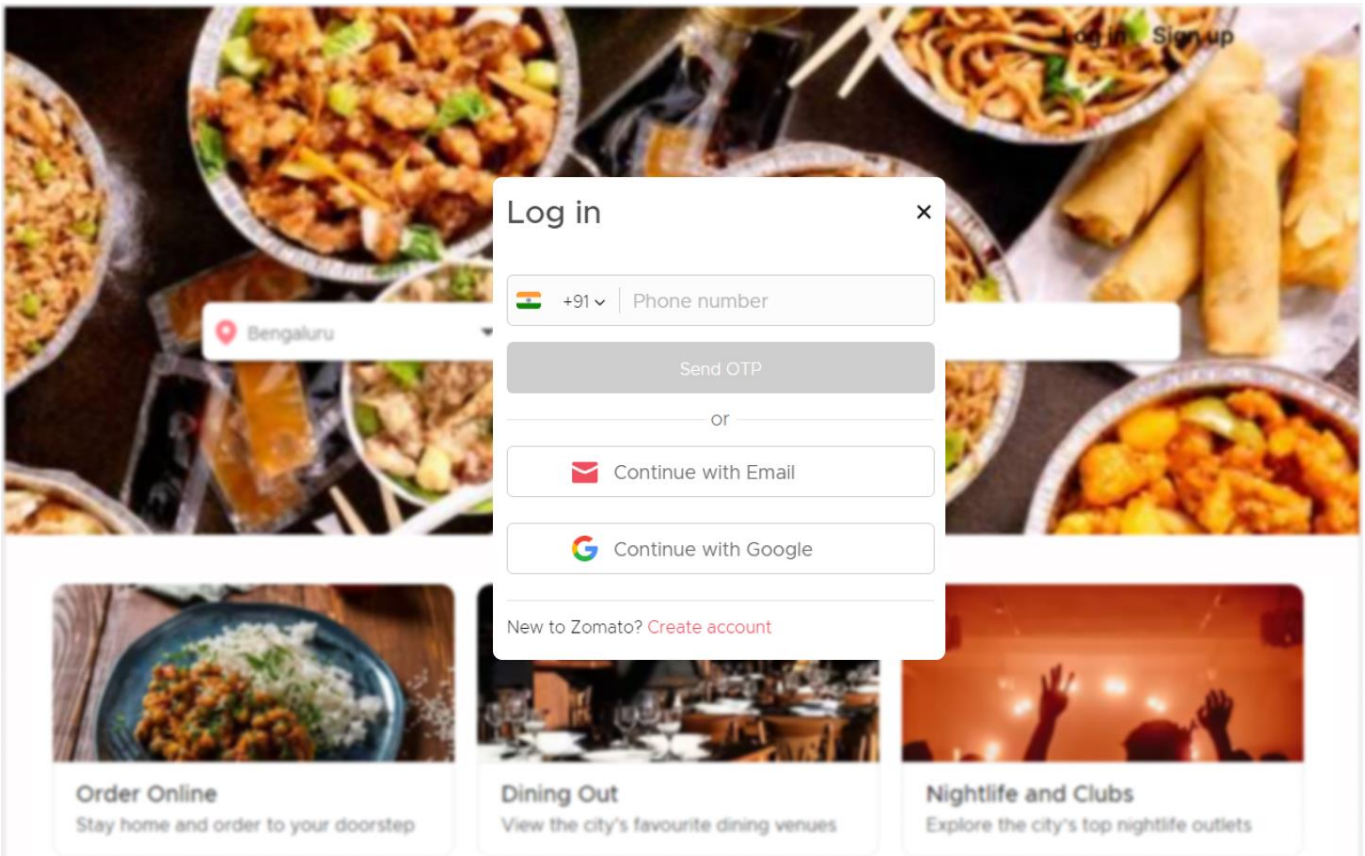
Figma: Figma is a powerful design tool that helps you to create anything: websites, applications, logos, and much more. By learning to use Figma, you'll take your first steps into User Interface Design and User Experience Design

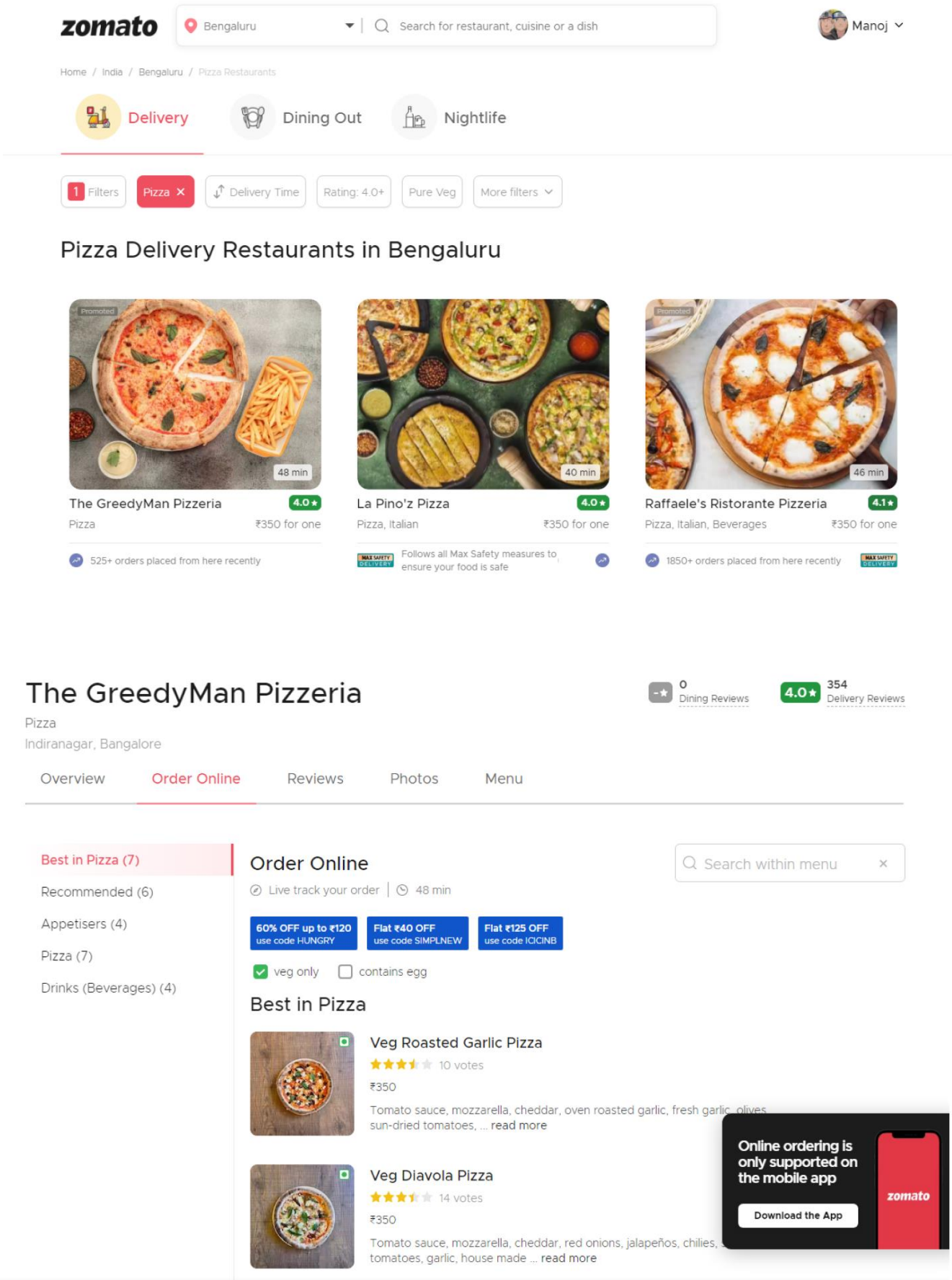
Steps to design:

- Go to browser and search Figma tool.
- Login to the tool through your Gmail account.
- Click on new design file.
- Select the frame tool and select the suitable frame.
- Then start designing the each page of the application for both Desktop website and Mobile application.

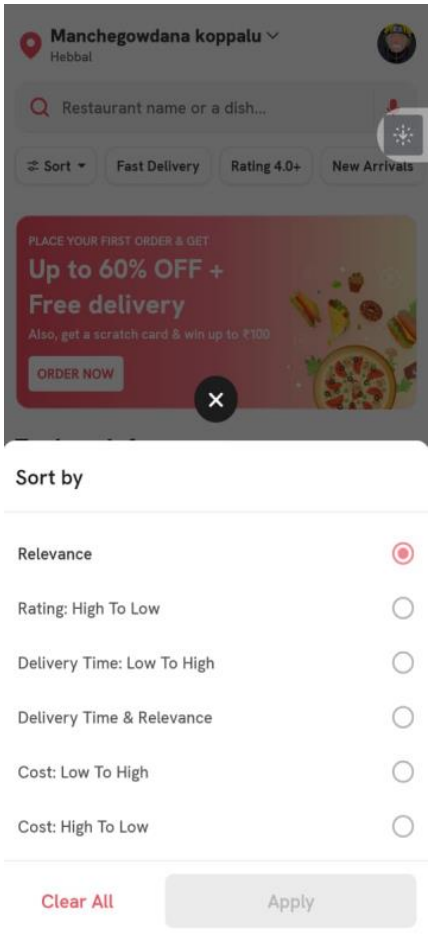
For Desktop website

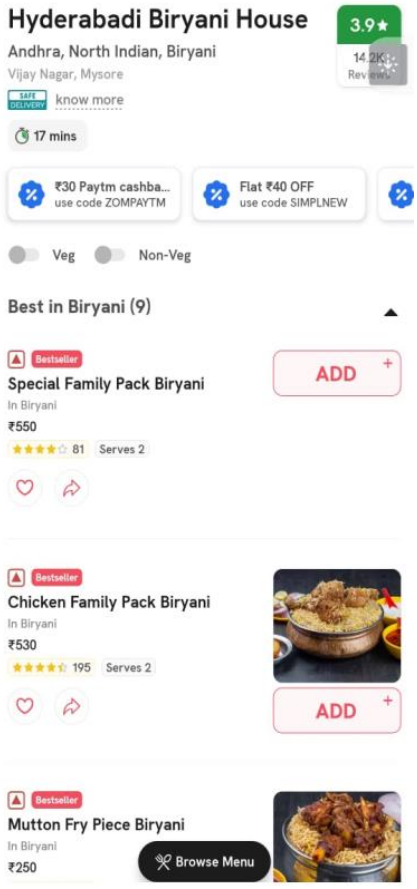


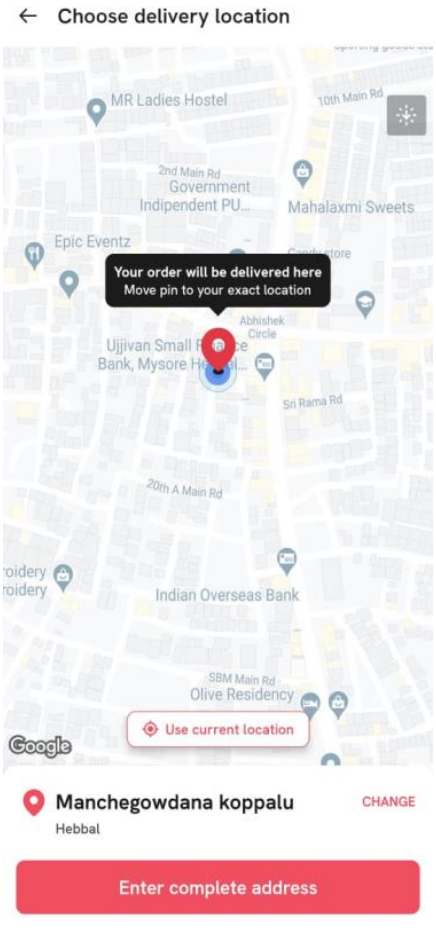


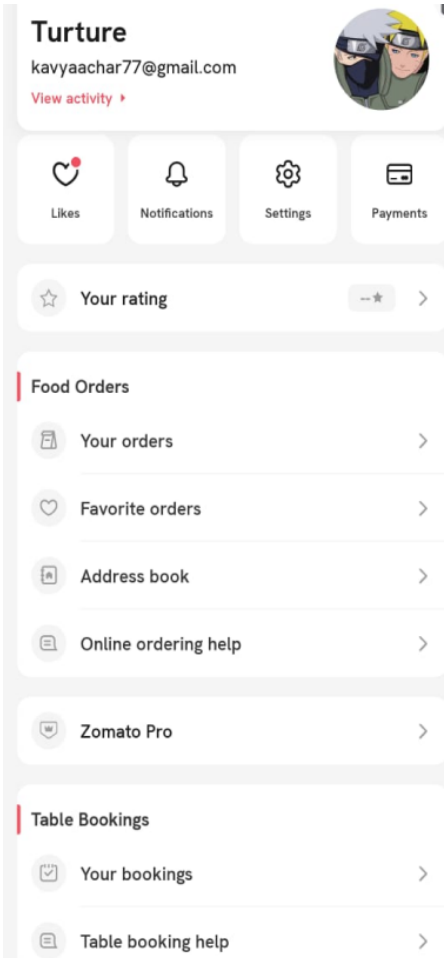

zomato
Bengaluru
Search for restaurant, cuisine or a dish
Manoj
Home / India / Bengaluru / Pizza Restaurants
Delivery
Dining Out
Nightlife
1 Filters
Pizza ×
Delivery Time
Rating: 4.0+
Pure Veg
More filters
Pizza Delivery Restaurants in Bengaluru
Promoted
48 min
The GreedyMan Pizzeria
4.0★
Pizza
₹350 for one
525+ orders placed from here recently
40 min
La Pino'z Pizza
4.0★
Pizza, Italian
₹350 for one
Follows all Max Safety measures to ensure your food is safe
Promoted
46 min
Raffaele's Ristorante Pizzeria
4.1★
Pizza, Italian, Beverages
₹350 for one
1850+ orders placed from here recently
The GreedyMan Pizzeria
Pizza
Indiranagar, Bangalore
0
Dining Reviews
4.0★
354
Delivery Reviews
Overview
Order Online
Reviews
Photos
Menu
Best in Pizza (7)
Recommended (6)
Appetisers (4)
Pizza (7)
Drinks (Beverages) (4)
Order Online
Search within menu
Live track your order
48 min
60% OFF up to ₹120
use code HUNGRY
Flat ₹40 OFF
use code SIMPLNEW
Flat ₹125 OFF
use code ICICINB
veg only
contains egg
Best in Pizza
Veg Roasted Garlic Pizza
10 votes
₹350
Tomato sauce, mozzarella, cheddar, oven roasted garlic, fresh garlic, olives, sun-dried tomatoes, ... read more
Veg Diavola Pizza
14 votes
₹350
Tomato sauce, mozzarella, cheddar, red onions, jalapeños, chilies, tomatoes, garlic, house made ... read more
Online ordering is only supported on the mobile app
Download the App
zomato

For Mobile Applications:








Turture
kavyaachar77@gmail.com
View activity
Likes
Notifications
Settings
Payments
Your rating
--★
Food Orders
Your orders
Favorite orders
Address book
Online ordering help
Zomato Pro
Table Bookings
Your bookings
Table booking help