

# **CLOUD BASED SMART FASHION RECOMMENDER APPLICATION**

**A PROJECT REPORT**

*Submitted by*

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*In partial fulfilment for the aware of the  
degree of*

**BACHELOR OF TECHNOLOGY**  
*In*

**INFORMATION TECHNOLOGY**

**SRI ESHWAR COLLEGE OF ENGINEERING**

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**(An Autonomous Institution, Affiliated to University**

**Chennai - 600 025)**

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**BONAFIED CERTIFICATE**

Certified that this project report “**CLOUD BASED SMART FASHION  
RECOMMENDER APPLICATION**” is the bonafide work of

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Submitted for the University Project Viva Voice Conduction .....

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## **CHAPTER 1**

### **INTRODUCTION**

#### **1.1 PROJECT OVERVIEW**

A smart fashion recommendation system is a system that is programmed to predict future preferable items from a large set of collections. A recommendation system works either by using user preferences or by using the items most preferred by all users. The main challenge in building a fashion recommendation system is that it is a very dynamic industry. It changes very often when it comes to seasons, festivals, pandemic conditions like coronavirus and many more. Smart fashion recommendations shouldn't be based solely on personal taste and past activity of the customer. There are many external factors (many of which are emotional) that make creating a fashion recommendation system all the more complex. Public perceptions must be taken into account, as well as fashion rules, dress rules and current trends. Image-based fashion recommendation systems (FRSs) have attracted a huge amount of attention from fast fashion retailers as they provide a personalized shopping experience to consumers.

#### **1.2 PURPOSE**

In recent years, the textile and fashion industries have witnessed an enormous amount of growth in fast fashion. The main challenge in building a fashion recommendation system is that it is a very dynamic industry. It changes very often when it comes to seasons, festivals, pandemic conditions like coronavirus and many more. Smart fashion recommendations shouldn't be based solely on personal taste and past activity of the customer. There are many external factors (many of which are emotional) that make creating a fashion recommendation system all the more complex. Public perceptions must be taken into account, as well as fashion rules, dress rules and current trends. On e-commerce platforms, where numerous choices are available, an efficient recommendation system is required to sort, order, and efficiently convey relevant product content or information to users.

## **CHAPTER 2**

### **LITERATURE SURVEY**

#### **2.1 EXISTING PROBLEM**

Smart Recommendation system is referred to as a decision-making approach for users under a multidimensional information environment . It has also been defined as an e-commerce tool, which helps consumers search based on knowledge that is related to a consumer's choices and preferences . Other websites related to smart fashion recommender system , if we want to search for a particular trend it consumes much time to get the accurate result . In various smart fashion recommender websites , if a customer has a doubt and in need of customer service , it will take plenty of time to get a reply from customer service.

#### **2.2 REFERENCES**

- 1) Mr. Samit Chakraborty and Mr. Saiful Hoque, Fashion Recommendation Systems, Models And Methods (2021)
- 2) Mr. Malcolm Bernard, Fashion As Communication (2008)
- 3) Ms. Jia Jia and Mr. Ke Gao, Trip Outfits Advisor: Location Oriented Clothing Recommendation (2016)
- 4) Mr. T. H. Ying Huang, Outfit Recommendation Based On Deep Learning (2017)
- 5) Mr. Gregory F. Cooper and Mr. Edward Hershkovits, A Bayesian Method For The Induction Of Probabilistic Networks From Data” (1992)
- 6) Mr. Wei Zhang and Mr. Bo Begole, Real Time Clothes Comparison Based On Multiviewvision(2008)
- 7) Mrs. Qingqing Mao and Mr. Aihua Dong, Intelligent Costume Recommendation System Based on Expert System(2018)

### **2.3 PROBLEM STATEMENT**

However, now there are plenty of methods to obtain information about the consumer's liking for a product through the Internet. These data can be retrieved in the forms of voting, tagging, reviewing and the number of likes or dislikes the user provides. It may also include reviews written in blogs, videos uploaded on YouTube or messages about a product. Regardless of communication and presentation, medium preferences are expressed in the form of numerical values . Nowadays , customer have difficulty to search many websites to find fashion clothes and accessories . It is a web application that particularly provides the type of product you are looking for . The goal of this project is that the customer can directly make online shopping based on their choice without any search. By interacting with chatbot , this web application provides satisfaction among customers regarding products .



## CHAPTER 3

### IDEATION AND PROPOSED SOLUTION

#### 3.1 EMPATHY MAP CANVAS

An empathy map is a simple, easy-to-digest visual that captures knowledge about a user's behaviours and attitudes. It is a useful tool to help teams better understand their users. Creating an effective solution requires understanding the true problem and the person who is experiencing it. The exercise of creating the map helps participants consider things from the user's perspective along with his or her goals and challenges.



## 3.2 IDEATION AND BRAINSTORMING

### 3.2.1 BRAIN STORMING

Brainstorming provides a free and open environment that encourages everyone within a team to participate in the creative thinking process that leads to problem solving. Prioritizing volume over value, out-of-the-box ideas are welcome and built upon, and all participants are encouraged to collaborate, helping each other develop a rich amount of creative solutions.

Template



## SMART FASHION RECOMMENDER APPLICATION



Fashion applications have seen tremendous growth and are now one of the most used programs in the e-commerce field. The needs of people are continuously evolving, creating a room for innovation among the applications. We are implementing such a chatbox, which is fed with the knowledge of the application's algorithm and helps the user completely from finding their needs to processing the payment and initiating delivery.

[Share template feedback](#)

➔

### Before you collaborate

A little bit of preparation goes a long way with this session. Here's what you need to do to get going.

⌚ 10 minutes

A

#### Team gathering

Define who should participate in the session and send an invite. Share relevant information or pre-work ahead.

B

#### Set the goal

Think about the problem you'll be focusing on solving in the brainstorming session.

C

#### Learn how to use the facilitation tools

Use the Facilitation Superpowers to run a happy and productive session.

[Open article](#) ➔

1

### Define your problem statement

Usefulness of problem that our interactive design to reshape the user to do whatever they want. The amount of fun a user has to go through to have a product they desire to have for a more user-friendly interface. The goal was of the product, to develop a more product that is able to understand the needs of the user and recommend products of desire.

⌚ 5 minutes

PROBLEM

How might we (your problem statement)?

Key rules of brainstorming

To run an smooth and productive session

Stay in topic

Encourage wild ideas

Defer judgment

Listen to others

Go for volume

If possible, be visual

2

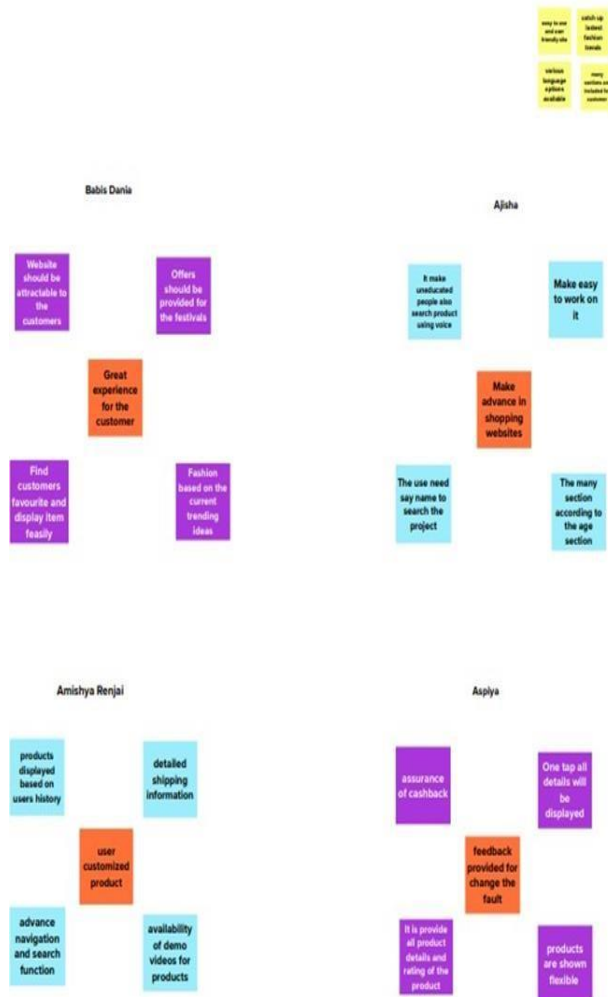
## Brainstorm

Write down any ideas that come to mind that address your problem statement.

10 minutes

### TP

You can select a sticky note and hit the pencil (switch to sketch) icon to start drawing!

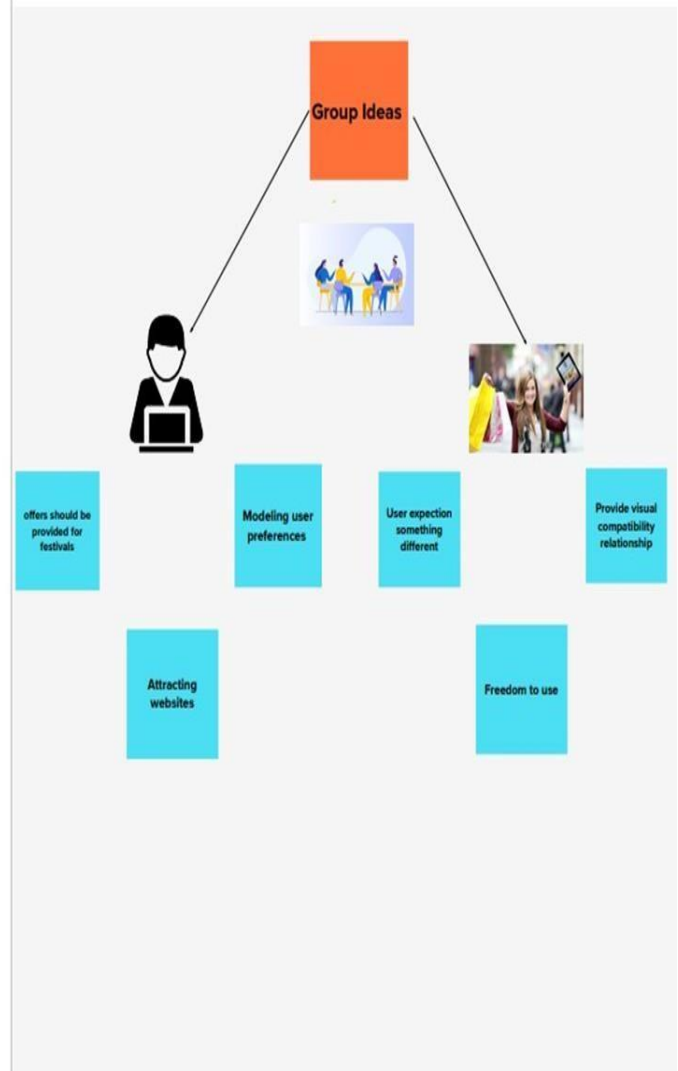


3

## Group ideas

Take turns sharing your ideas while clustering similar or related notes as you go. Once all sticky notes have been grouped, give each cluster a sentence-like label. If a cluster is bigger than six sticky notes, try and see if you and break it up into smaller sub-groups.

20 minutes



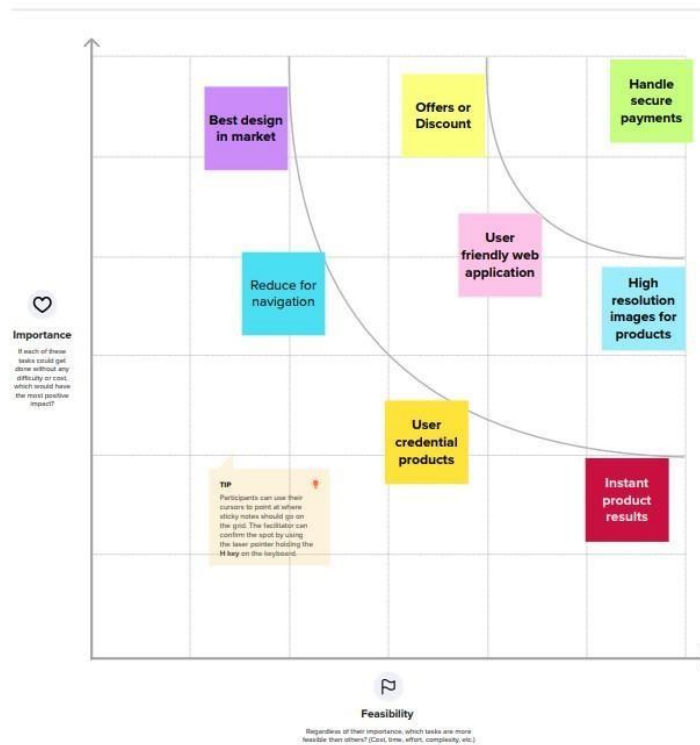
## 3.2.2 IDEA PRIORITIZATION

4

#### Prioritize

Your team should all be on the same page about what's important moving forward. Place your ideas on this grid to determine which ideas are important and which are feasible.

20 minutes



5

#### After you collaborate

You can export the mural as an image or pdf to share with members of your company who might find it helpful.

##### Quick add-ons

- A Share the mural**  
Share a view link to the mural with stakeholders to keep them in the loop about the outcomes of the session.
- B Export the mural**  
Export a copy of the mural as a PNG or PDF to attach to emails, include in slides, or save in your drive.

##### Keep moving forward

- Strategy blueprint**  
Define the components of a new idea or strategy.  
[Open the template →](#)
- Customer experience journey map**  
Understand customer needs, motivations, and obstacles for an experience.  
[Open the template →](#)
- Strengths, weaknesses, opportunities & threats**  
Identify strengths, weaknesses, opportunities, and threats (SWOT) to develop a plan.  
[Open the template →](#)

[Share template feedback](#)

### 3.3 PROPOSED SOLUTION

It provides a simple path for the customers to choose the type of product required regarding the customer's wish. There will be no difficulty for customers in searching the products because the style and fashion of products are readily available where you can choose according to the need of customer. By using artificial customer service like chatbot, provides quick clarification for customer's doubt. Also, it consumes less time for the customers to do their shopping.

S.NO	Parameter	Description
1	Problem statement	Customer feel difficult when search many websites to find fashion clothes and accessories.
2	Idea/solution description	Customer directly make online shopping based on customer choice without any search.
3	Novelty/Uniqueness	The customer will talk to chat bot regarding the products.
4	Social impact/customer satisfaction	The user friendly, interface form chat bot finding dress makes customer satisfied.
5	Business model	The chat bot sells our products to customer.
6	Scalability of the solution	We can easily scalable our application by increases the items and products.

### 3.4 PROBLEM SOLUTION FIT

Define CS, fit into CC	<b>1. CUSTOMER SEGMENT(S)</b> <span>CS</span> Our customers are mainly parents who are unable to monitor their children as they need to go to work. Some of our customers includes the guardians of children of age 0-7 with special needs whose activities must be monitored every now and then for their safety.	<b>6. CUSTOMER CONSTRAINTS</b> <span>CC</span> The constraints of the customers includes the high cost of these devices, the knowledge about these gadgets that are available in the market, the connectivity issues and its inefficiencies due to various reasons leading to low sales performance.	<b>5. AVAILABLE SOLUTIONS</b> <span>AS</span> The available solutions provide some benefits like real time tracking, safe zone alerts, panic button, etc. Though these devices come with such advantages, the increasing costs of such devices, its connectivity issues and the parents no proper knowledge about these gadgets leads to low sales of these items in the market.	Explore AS, differentiate
	<b>2. JOBS-TO-BE-DONE / PROBLEMS</b> <span>J&amp;P</span> The parents must be able to track the child's location every now and then and receive notifications if he/she is in an emergency situation. Parents should also be able to ensure that their child is in a safe zone and must be provided with options like tracking the child's location and forecasting the weather for safety measures.	<b>9. PROBLEM ROOT CAUSE</b> <span>RC</span> The root cause for the need of child tracking devices in the market the rising cases of child disappearances, abuses, kidnappings and accidents. To prevent these unfortunate incidents parents are now aware of devices like these that ensures the protection of their children.	<b>7. BEHAVIOUR</b> <span>BE</span> Some of the customers behaviours that leads to buying these child tracking gadgets includes the insecurity they suffer when their children are left alone in their house when they go to work. When their children are travelling or playing with their friends the parents are always concerned about the child's environment and the weather conditions and the use of these devices can reduce their tension in their working place.	
Identify strong TR & EM	<b>3. TRIGGERS</b> <span>TR</span> The increasing cases of child disappearances, child abuses, kidnappings and accidents triggers the parents to use child tracking gadgets for their child safety and to work peacefully.	<b>10. YOUR SOLUTION</b> <span>SL</span> A child tracking device which is capable of monitoring the child's location, the weather conditions, notifications features to make sure their children does not move out of his safe zone and the history of child's locations to find out his/her best belongings can provide solutions to the existing child's safety problems.	<b>8. CHANNELS of BEHAVIOUR</b> <span>CH</span> <b>8.1 ONLINE</b> When the parents are online they can always keep an eye on their children using their live location. They can also check for the weather conditions using the child's location. <b>8.2 OFFLINE</b> When the parents are present physically they can often visit their child's location to ensure they are safe and the climate looks optimal.	Extract online & offline CH of BE
	<b>4. EMOTIONS: BEFORE / AFTER</b> <span>EM</span> The parents are very anxious about the condition of their children when they are all alone in a house or playing with their friends in some places. The growing insecurity leads them to perform badly in their work and causes a lot of mental problems. With the help of these child tracking gadgets, the parents can feel secure about their child's conditions and his activities and can always keep an eye on their location.			

## **CHAPTER-4**

### **REQUIREMENT ANALYSIS**

#### **4.1 FUNCTIONAL REQUIREMENTS**

<b>FR No.</b>	<b>Functional Requirement (Epic)</b>	<b>Sub Requirement (Story / Sub-Task)</b>
FR-1	User Registration	Registration through mail Registration through Gmail
FR-2	User Confirmation	Confirmation via Email Confirmation via OTP
FR-3	User Login	Login using username & Password
FR-4	Personal Details	Personal details through Form Personal details through UI Tab
FR-5	Delivery Confirmation	Confirmation via Email Confirmation via Phone

#### **4.2 NON-FUNCTIONAL REQUIREMENTS**

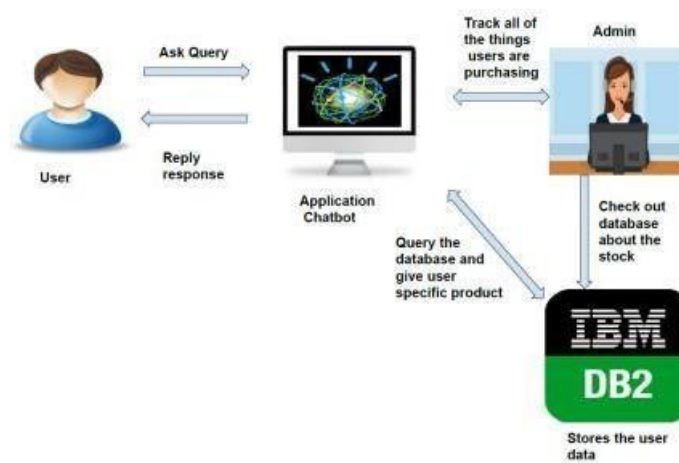
<b>FR No.</b>	<b>Non-Functional Requirement</b>	<b>Description</b>
NFR-1	<b>Usability</b>	Ease of use of the application for the user
NFR-2	<b>Security</b>	User privacy is the highest priority of the application. Security measures are undertaken for the user
NFR-3	<b>Reliability</b>	It can handle more than 2000 users at a time. It can process and initialize most functions.
NFR-4	<b>Performance</b>	The application can handle complex tasks and supports multi-tasking.
NFR-5	<b>Availability</b>	It is a free web and application available on all platforms.
NFR-6	<b>Scalability</b>	With higher workloads the user will experience a 10 to 17% drop in performance.

## CHAPTER 5

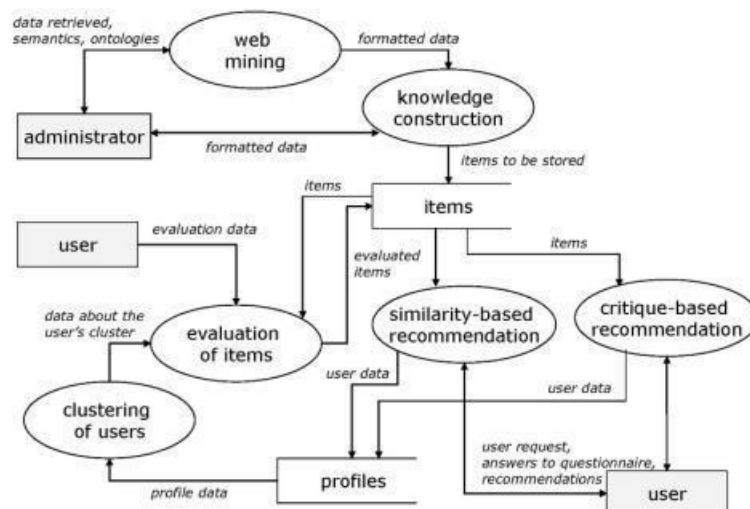
### PROJECT DESIGN

#### 5.1 DATA FLOW DIAGRAM

##### Fashion Recommender: (Simplified)

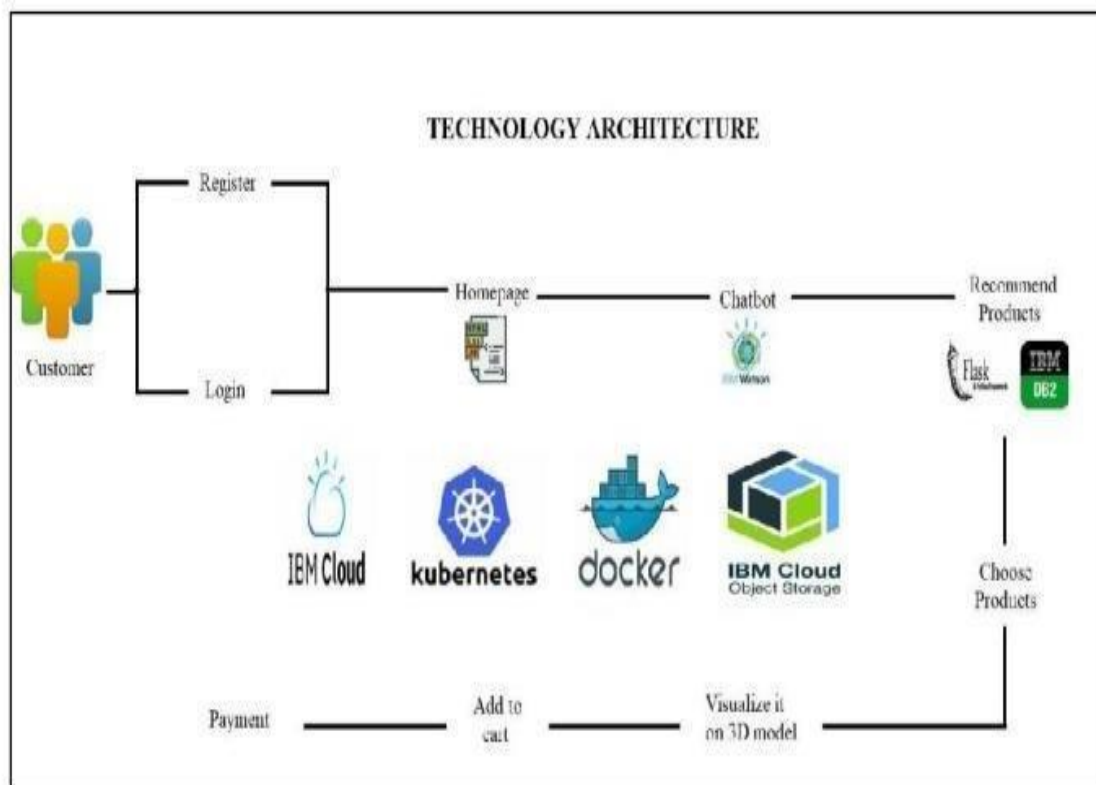
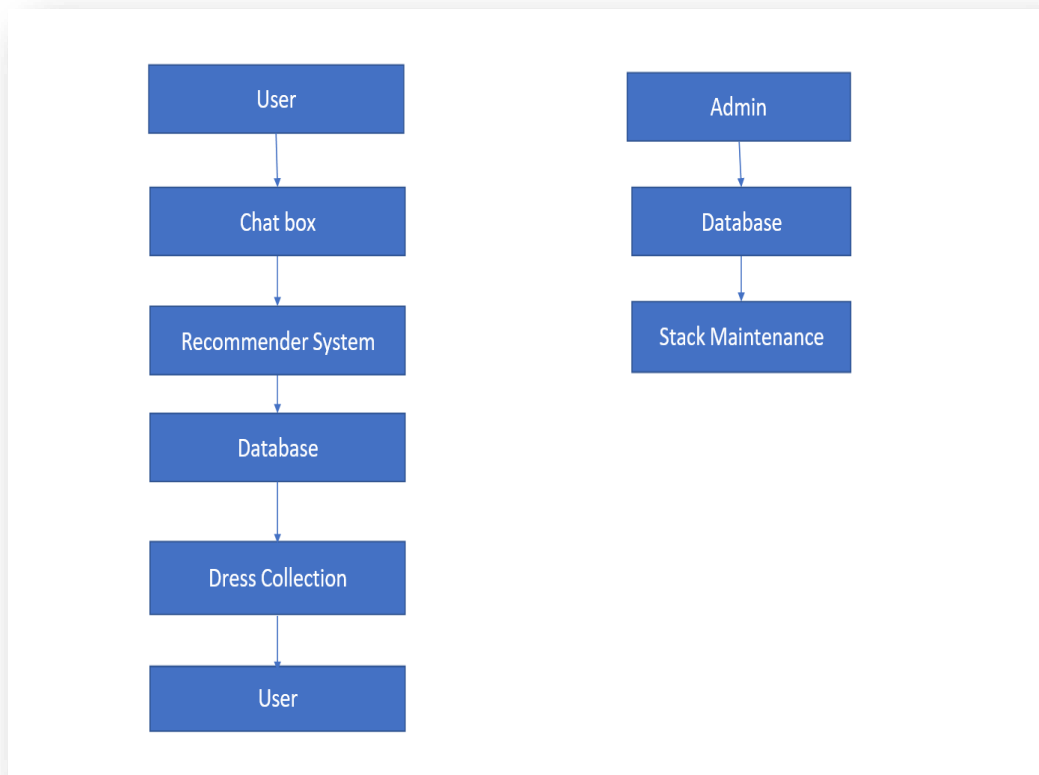


##### DFD of Fashion Recommender (Industry Standard)





## 5.2 SOLUTION AND TECHNICAL ARCHITECTURE





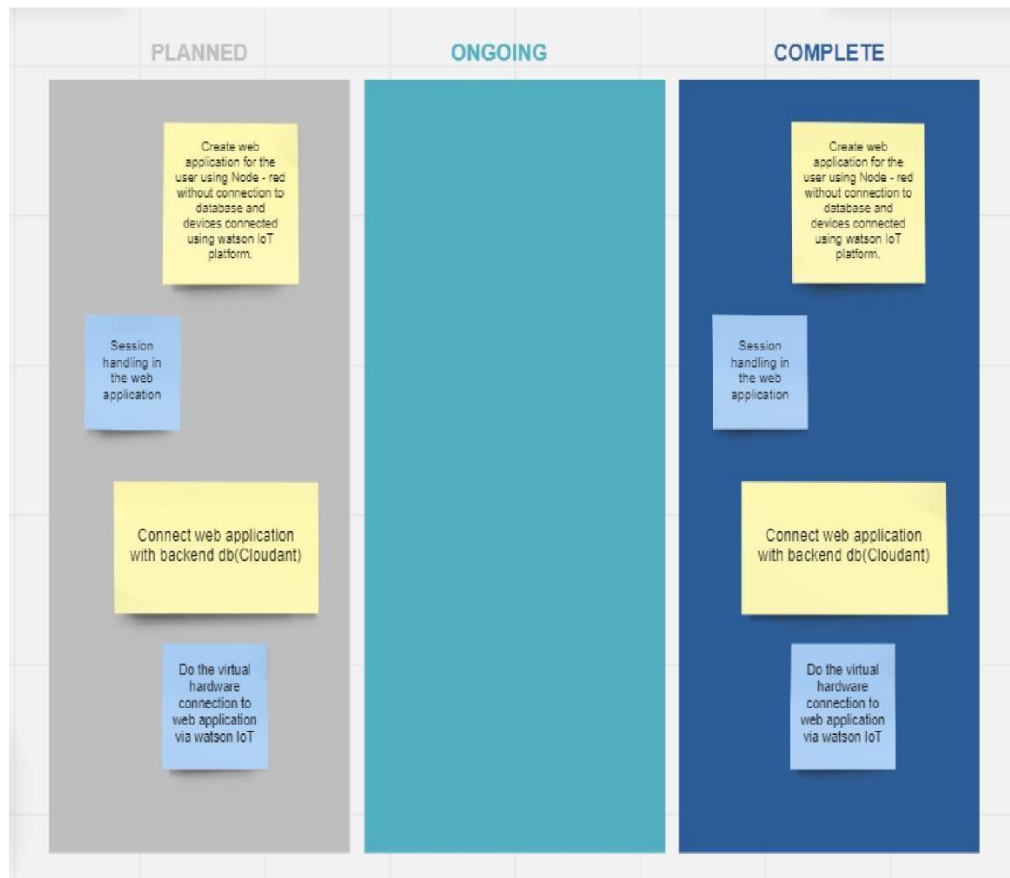
### 5.3 USER STORIES

User Type	Functional Requirement (Epic)	User Story Number	User Story / Task	Acceptance criteria	Priority	Release
Customer (Mobile user)	Registration	USN-1	As a user, I can register for the application by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the application	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the application through Email	I can register & access the dashboard with Email Login	Low	Sprint-2
		USN-4	As a user, I can register for the application through Gmail	I can register & access the dashboard with Gmail Login	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the application by entering my username/email & password	I can login into the application with Gmail Login	High	Sprint-1
	Dashboard	USN-5	As a user, I can log access the Dashboard of the application by logging into the application	I can access the Dashboard by logging into the application	High	Sprint-1
Customer (Web user)	Registration	USN-1	As a user, I can register for the web-page by entering my email, password, and confirming my password.	I can access my account / dashboard	High	Sprint-1
		USN-2	As a user, I will receive confirmation email once I have registered for the web-page	I can receive confirmation email & click confirm	High	Sprint-1
		USN-3	As a user, I can register for the web-page through Email	I can register & access the dashboard with Email Login	Low	Sprint-2
		USN-4	As a user, I can register for the web-page through Gmail	I can register & access the dashboard with Gmail Login	Medium	Sprint-1
	Login	USN-5	As a user, I can log into the web-page by entering my username/email & password	I can login into the application with Gmail Login	High	Sprint-1

## CHAPTER 6

### PROJECT PLANNING AND SCHEDULING

#### 6.1 SPRINT PLANNING AND ESTIMATION



## 6.2 SPRINT DELIVERY SCHEDULE

Sprint	Total Story Points	Duration	Sprint Start Date	Sprint End Date (Planned)	Story Points Completed (as on Planned End Date)	Sprint Release Date (Actual)
Sprint-1	18	6 Days	24 Oct 2022	29 Oct 2022	24	29 Oct 2022
Sprint-2	18	6 Days	31 Oct 2022	05 Nov 2022	24	05 Nov 2022
Sprint-3	18	6 Days	07 Nov 2022	12 Nov 2022	24	12 Nov 2022
Sprint-4	18	6 Days	14 Nov 2022	19 Nov 2022	24	19 Nov 2022

## CHAPTER 7

### CODING & SOLUTIONING

#### 7.1.1 FEATURE 1 : LOGIN

##### Algorithm :

1. Enter the credentials and hit enter (email and password).
2. If already logged in user is taken to home page
3. Else , check for validity of credentials entered using query to cloudant db.
4. On correct credentials , user is taken to home page.

##### Login.html:

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Login</title>
    <link rel="icon" type="image/x-icon" href="images/download.jpg">
    <link rel="stylesheet" href="style.css" />
    <link
      href="https://fonts.googleapis.com/css2?family=Roboto:wght@300&display=swap"
      rel="stylesheet"
    />
  </head>
  <body>
    <div class="login-box" style="margin-top:175px ;">
      <h1>Login</h1>
      <form action="action_page.html">
        <label>Email</label>
        <input type="email" placeholder="" />
        <label>Password</label>
        <input type="password" placeholder="" />
        <input type="submit" value="Submit" />
      </form>
```

```

</div>
<p class="para-2">
    Not have an account? <a href="signup.html">Sign Up Here</a>
</p>
</body>
</html>

```

### 7.1.2 FEATURE 2 : SIGNUP

#### Algorithm :

1. Enter the signup form fields (first name , last name email , password )and hit enter.
2. All credentials are validated at client side.
3. Email is checked if already registered or not in the database.
4. If already registered , notification displayed. Or else, the user is taken to the successful signup page.

#### Signup.html :

```

<!DOCTYPE html>
<html lang="en">
<head>
    <title>Sign Up</title>
    <link rel="icon" type="image/x-icon" href="images/download.jpg">
    <link rel="stylesheet" href="style.css" />
    <link
        href="https://fonts.googleapis.com/css2?family=Roboto:wght@300&display=swap"
        rel="stylesheet"
    />
</head>
<body>
    <div class="signup-box">
        <h1>Sign Up</h1>
        <form action="action_page.html">
            <label>First Name</label>
            <input type="text" placeholder="" />

```

```

<label>Last Name</label>
<input type="text" placeholder="" />
<label>Email</label>
<input type="email" placeholder="" />
<label>Password</label>
<input type="password" placeholder="" />
<label>Confirm Password</label>
<input type="password" placeholder="" />
<input type="submit" value="Submit" />
</form>
<p>
  By clicking the Sign Up button,you agree to our <br />
  <a href="terms.html">Terms and Condition</a> and <a href="privacy.html">Policy
  Privacy</a>
</p>
</div>
<p class="para-2">
  Already have an account? <a href="login.html">Login here</a>
</p>
</body>
</html>

```

### 7.1.3 FEATURE 3 : HOME

#### Algorithm :

1. If the user is logged out , he/she is taken to the login page.
2. Home page buttons are displayed (Team , Work , Contact, Logout)
3. If buttons are clicked , the user is taken to the requested page.

#### Home.html:

```

<!DOCTYPE html>
<html>
<title>Trendy Fashion</title>

```

```

<link rel="icon" type="image/x-icon" href="images/download.jpg">
<meta charset="UTF-8">
<meta name="viewport" content="width=device-width, initial-scale=1">
<link rel="stylesheet" href="https://www.w3schools.com/w3css/4/w3.css">
<link rel="stylesheet" href="https://fonts.googleapis.com/css?family=Raleway">
<link rel="stylesheet" href="https://cdnjs.cloudflare.com/ajax/libs/font-
awesome/4.7.0/css/font-awesome.min.css">
<link rel="stylesheet"
href="https://cdn.jsdelivr.net/npm/bootstrap@4.6.2/dist/css/bootstrap.min.css"
integrity="sha384-
xOoLHFLEh07PJGoPkLv1IbcEPTNtaed2xpHsD9ESMhqIYd0nLMwNLD69Npy4HI+N"
crossorigin="anonymous">

```

```

<style>
  body,
  h1,
  h2,
  h3,
  h4,
  h5,
  h6 {
    font-family: "Raleway", sans-serif
  }

```

```

body,
html {
  height: 100%;
  line-height: 1.8;
}

```

```

/* Full height image header */
.bgimg-1 {
  background-position: center;

```

```

background-size: cover;
background-image: url("images/clothing-line.jpg");
min-height: 100%;
}

.w3-bar .w3-button {
padding: 16px;
}
</style>

<body>

<!-- Navbar (sit on top) -->
<div class="w3-top">
  <div class="w3-bar w3-white w3-card" id="myNavbar">
    <a href="#home" class="w3-bar-item w3-button w3-wide">LOGO</a>
    <!-- Right-sided navbar links -->
    <div class="w3-right w3-hide-small">
      <a href="#about" class="w3-bar-item w3-button">ABOUT</a>
      <a href="#team" class="w3-bar-item w3-button"><i class="fa fa-user"></i> TEAM</a>
      <a href="#work" class="w3-bar-item w3-button"><i class="fa fa-th"></i> WORK</a>
      <a href="#contact" class="w3-bar-item w3-button"><i class="fa fa-envelope"></i>
CONTACT</a>
      <a href="login.html" class="w3-bar-item w3-button"><i class="fa fa-sign-out" aria-
hidden="true"></i> LOGOUT</a>

    </div>
    <!-- Hide right-floated links on small screens and replace them with a menu icon -->

    <a href="javascript:void(0)" class="w3-bar-item w3-button w3-right w3-hide-large w3-
hide-medium"
      onclick="w3_open()">
      <i class="fa fa-bars"></i>

```



```

    </a>
  </div>
</div>

<!-- Sidebar on small screens when clicking the menu icon -->
<nav class="w3-sidebar w3-bar-block w3-black w3-card w3-animate-left w3-hide-medium
w3-hide-large"
  style="display:none" id="mySidebar">
  <a href="javascript:void(0)" onclick="w3_close()" class="w3 -bar-item w3-button w3-large
w3-padding-16">Close ×</a>
  <a href="#about" onclick="w3_close()" class="w3-bar-item w3-button">ABOUT</a>
  <a href="#team" onclick="w3_close()" class="w3-bar-item w3-button">TEAM</a>
  <a href="#work" onclick="w3_close()" class="w3-bar-item w3-button">WORK</a>
  <a href="#contact" onclick="w3_close()" class="w3-bar-item w3-button">CONTACT</a>
</nav>

<!-- Header with full-height image -->
<header class="bgimg-1 w3-display-container w3-grayscale-min" id="home">
  <div class="w3-display-left w3-text-white" style="padding:48px">
    <span class="w3-jumbo w3-hide-small">Start something that matters</span><br>
    <span class="w3-xxlarge w3-hide-large w3-hide-medium">Start something that
matters</span><br>
    <span class="w3-large">Stop wasting valuable time with projects that just isn't
you.</span>
    <p><a href="#about"
      class="w3-button w3-white w3-padding-large w3-large w3-margin-top w3-opacity w3-
hover-opacity-off">Learn more
      and start today</a></p>
  </div>
  <div class="w3-display-bottomleft w3-text-grey w3-large" style="padding:24px 48px">
    <i class="fa fa-facebook-official w3-hover-opacity"></i>
    <i class="fa fa-instagram w3-hover-opacity"></i>
    <i class="fa fa-snapchat w3-hover-opacity"></i>

```

```

<i class="fa fa-pinterest-p w3-hover-opacity"></i>
<i class="fa fa-twitter w3-hover-opacity"></i>
<i class="fa fa-linkedin w3-hover-opacity"></i>
</div>
</header>

```

```

<!-- About Section -->
<div class="w3-container" style="padding:128px 16px" id="about">
  <h3 class="w3-center">ABOUT THE COMPANY</h3>
  <p class="w3-center w3-large">Key features of our company</p>
  <div class="w3-row-padding w3-center" style="margin-top:64px">
    <div class="w3-quarter">
      <i class="fa fa-desktop w3-margin-bottom w3-jumbo w3-center"></i>
      <p class="w3-large">Responsive</p>
      <p>“When we ground ourselves in the present moment, we spontaneously connect better
with others.”</p>
    </div>
    <div class="w3-quarter">
      <i class="fa fa-heart w3-margin-bottom w3-jumbo"></i>
      <p class="w3-large">Passion</p>
      <p>"Believe in your heart that you're meant to live a life full of passion, purpose, magic
and miracles."</p>
    </div>
    <div class="w3-quarter">
      <i class="fa fa-diamond w3-margin-bottom w3-jumbo"></i>
      <p class="w3-large">Design</p>
      <p>"Design creates culture. Culture shapes values. Values determine the future."</p>
    </div>
    <div class="w3-quarter">
      <i class="fa fa-cog w3-margin-bottom w3-jumbo"></i>
      <p class="w3-large">Support</p>
      <p>“There’s a fine line between support and stalking and let’s all stay on the right side
of that.”</p>
    </div>
  </div>
</div>

```

</div>

</div>

</div>

<!-- Promo Section - "We know design" -->

<div class="w3-container w3-light-grey" style="padding:128px 16px">

<div class="w3-row-padding">

<div class="w3-col m6">

<h3>We know design.</h3>

<p>"Make it simple, but significant."</p>

<p><a href="#work" class="w3-button w3-black"><i class="fa fa-th"> </i> View Our  
Works</a></p>

</div>

<div class="w3-col m6">



</div>

</div>

</div>

<!-- Team Section -->

<div class="w3-container" style="padding:128px 16px" id="team">

<h3 class="w3-center">THE TEAM</h3>

<p class="w3-center w3-large">The ones who runs this company</p>

<div class="w3-row-padding w3-grayscale" style="margin-top:64px">

<div class="w3-col l3 m6 w3-margin-bottom">

<div class="w3-card">



<div class="w3-container">

<h3>John Doe</h3>

<p class="w3-opacity">CEO & Founder</p>

<p>Manages and directs the company toward its primary goals and objectives.  
Oversees employment decisions

at the executive level of the company. Leads a team of executives to consider major decisions including

acquisitions, mergers, joint ventures, or large-scale expansion.</p>

<p><button class="w3-button w3-light-grey w3-block"><i class="fa fa-envelope"></i> Contact</button></p>

</div>

</div>

</div>

<div class="w3-col l3 m6 w3-margin-bottom">

<div class="w3-card">



<div class="w3-container">

<h3>Anja Doe</h3>

<p class="w3-opacity">Stylist</p>

<p>Responsible for the visual style and images in magazines, newspapers, product packaging.Inspire and guide

the vision

of the design team, oversee the work of illustrators, graphic/visual designers, photographers, and others

who are

engaged in artwork or layout design.</p>

<p><button class="w3-button w3-light-grey w3-block"><i class="fa fa-envelope"></i> Contact</button></p>

</div>

</div>

</div>

<div class="w3-col l3 m6 w3-margin-bottom">

<div class="w3-card">



<div class="w3-container">

<h3>Mike Ross</h3>

<p class="w3-opacity">Designer</p>

<p>Plan, create and code internet sites and web pages, many of which combine text

with sounds, pictures,

graphics

and video clips. Responsible for creating the design and layout of a website or web pages.

It and can mean working on a brand new website or updating an already existing site.

`<p><button class="w3-button w3-light-grey w3-block"><i class="fa fa-envelope"></i> Contact</button></p>`

`</div>`

`</div>`

`</div>`

`<div class="w3-col l3 m6 w3-margin-bottom">`

`<div class="w3-card">`

``

`<div class="w3-container">`

`<h3>Dan Star</h3>`

`<p class="w3-opacity">Marketing Manager</p>`

`<p>Conceptualize visuals based on requirements. Prepare rough drafts and present ideas. Develop`

`illustrations,`

`logos and other designs using software or by hand. Use the appropriate colors and layouts for each`

`graphic.`

`Work with copywriters and creative director to produce final design.</p>`

`<p><button class="w3-button w3-light-grey w3-block"><i class="fa fa-envelope"></i> Contact</button></p>`

`</div>`

`</div>`

`</div>`

`</div>`

`</div>`

`<!-- Promo Section "Statistics" -->`

```

<div class="w3-container w3-row w3-center w3-dark-grey w3-padding-64">
  <div class="w3-quarter">
    <span class="w3-xxlarge">7+</span>
    <br>Partners
  </div>
  <div class="w3-quarter">
    <span class="w3-xxlarge">5K+</span>
    <br>Designers
  </div>
  <div class="w3-quarter">
    <span class="w3-xxlarge">10K+</span>
    <br>Happy Clients
  </div>
  <div class="w3-quarter">
    <span class="w3-xxlarge">150+</span>
    <br>Awards
  </div>
</div>

```

```

<!-- Work Section -->

```

```

<div class="w3-container" style="padding:128px 16px" id="work">
  <h3 class="w3-center">OUR WORK</h3>
  <p class="w3-center w3-large">What we've done for people</p>

```

```

<div style="margin-left: 40px;">

```

```

  <a href="view/view1.html">
    </a>
  <a href="view/view2.html">
    </a>
<a href="view/view3.html">
    </a>
<a href="view/view4.html">
    </a>
<a href="view/view5.html">
    </a>
<a href="view/view6.html">
    </a>
<a href="view/view7.html">
    </a>
</div>

```

```

<div class="list-group"style="text-align:center" >
    <a class="list-group-item list-group-item-action"><h1>Find yourself more in:</h1></a>
    <a href="category/womenformals.html" class="list-group-item list-group-item-action list-
group-item-primary"><h1>Women formals</h1></a>
    <a href="category/menformals.html" class="list-group-item list-group-item-action list-
group-item-secondary"><h1>Men formals</h1></a>
    <a href="category/kidsfashion.html" class="list-group-item list-group-item-action list-
group-item-success"><h1>Kids fashion</h1></a>
    <a href="category/fashionsilks.html" class="list-group-item list-group-item-action list-
group-item-danger"><h1>Fashion silks</h1></a>

```

```
<a href="category/chappels.html" class="list-group-item list-group-item-action list-group-item-warning"><h1>Chappels</h1></a>
```

```
<a href="category/bags.html" class="list-group-item list-group-item-action list-group-item-info"><h1>Bags</h1></a>
```

```
</div>
```

```
<script>
```

```
window.watsonAssistantChatOptions = {  
  integrationID: "271c9517-d9d6-417b-a76c-1d8578385dee", // The ID of this integration.  
  region: "us-south", // The region your integration is hosted in.  
  serviceInstanceID: "20470815-619a-40f1-8c14-816220ff2257", // The ID of your service  
instance.
```

```
  onLoad: function (instance) { instance.render(); }  
};  
setTimeout(function () {  
  const t = document.createElement('script');  
  t.src = "https://web-chat.global.assistant.watson.appdomain.cloud/versions/" +  
(window.watsonAssistantChatOptions.clientVersion || 'latest') +  
"/WatsonAssistantChatEntry.js";  
  document.head.appendChild(t);
```

```
  });  
</script>
```

```
</div>
```

```
<!-- Modal for full size images on click-->
```

```
<div id="modal01" class="w3-modal w3-black" onclick="this.style.display='none'">  
  <span class="w3-button w3-xxlarge w3-black w3-padding-large w3-display-topright"  
title="Close Modal Image">×</span>  
  <div class="w3-modal-content w3-animate-zoom w3-center w3-transparent w3-padding-  
64">  
    <img id="img01" class="w3-image">  
    <p id="caption" class="w3-opacity w3-large"></p>
```



```

</div>
</div>

<!-- Skills Section -->
<div class="w3-container w3-light-grey w3-padding-64">
  <div class="w3-row-padding">
    <div class="w3-col m6">
      <h3>Our Skills.</h3>
      <p>Sketching designs <br>
        Selecting fabrics and embellishments and sourcing suppliers<br>
        Sewing and creating physical pieces<br>
        Hosting model fittings and making necessary alterations<br>
        Participating in fashion shows<br>
        Communicating with clients and the media<br>
        Marketing designs<br>
        Promoting designs to creative directors and merchandisers<br>
      </p>
    </div>
    <div class="w3-col m6">
      <p class="w3-wide"><i class="fa fa-camera w3-margin-right"></i>Styling</p>
      <div class="w3-grey">
        <div class="w3-container w3-dark-grey w3-center" style="width:90%">90%</div>
      </div>
      <p class="w3-wide"><i class="fa fa-desktop w3-margin-right"></i>Designing</p>
      <div class="w3-grey">
        <div class="w3-container w3-dark-grey w3-center" style="width:85%">85%</div>
      </div>
      <p class="w3-wide"><i class="fa fa-photo w3-margin-right"></i>Marketing</p>
      <div class="w3-grey">
        <div class="w3-container w3-dark-grey w3-center" style="width:75%">80%</div>
      </div>
    </div>
  </div>
</div>
</div>

```

</div>

<!-- Contact Section -->

<div class="w3-container w3-light-grey" style="padding:128px 16px" id="contact">

<h3 class="w3-center">CONTACT</h3>

<p class="w3-center w3-large">Lets get in touch. Send us a message:</p>

<div style="margin-top:48px">

<p><i class="fa fa-map-marker fa-fw w3-xxlarge w3-margin-right"></i>kaniyakumari,  
India.</p>

<p><i class="fa fa-phone fa-fw w3-xxlarge w3-margin-right"></i> Phone:  
+919876543210</p>

<p><i class="fa fa-envelope fa-fw w3-xxlarge w3-margin-right"> </i> Email:  
trendyfashion@gmail.com</p>

<br>

<form action="/action\_page.php" target="\_blank">

<p><input class="w3-input w3-border" type="text" placeholder="Name" required  
name="Name"></p>

<p><input class="w3-input w3-border" type="text" placeholder="Email" required  
name="Email"></p>

<p><input class="w3-input w3-border" type="text" placeholder="Subject" required  
name="Subject"></p>

<p><input class="w3-input w3-border" type="text" placeholder="Message" required  
name="Message"></p>

<p>

<button class="w3-button w3-black" type="submit" input type="reset">

<i class="fa fa-paper-plane"><a style="text-decoration: none;" href="submit.html">  
SEND MESSAGE </a></i>

</button>

</p>

</form>

<!-- Image of location/map -->



```

</div>
</div>

<!-- Footer -->
<footer class="w3-center w3-black w3-padding-64">
  <a href="#home" class="w3-button w3-light-grey"><i class="fa fa-arrow-up w3-margin-
right"></i>To the top</a>
  <div class="w3-xlarge w3-section">
    <i class="fa fa-facebook-official w3-hover-opacity"></i>
    <i class="fa fa-instagram w3-hover-opacity"></i>
    <i class="fa fa-snapchat w3-hover-opacity"></i>
    <i class="fa fa-pinterest-p w3-hover-opacity"></i>
    <i class="fa fa-twitter w3-hover-opacity"></i>
    <i class="fa fa-linkedin w3-hover-opacity"></i>
  </div>
</footer>

<script>
  // Modal Image Gallery
  function onClick(element) {
    document.getElementById("img01").src = element.src;
    document.getElementById("modal01").style.display = "block";
    var captionText = document.getElementById("caption");
    captionText.innerHTML = element.alt;
  }

  // Toggle between showing and hiding the sidebar when clicking the menu icon
  var mySidebar = document.getElementById("mySidebar");

  function w3_open() {
    if (mySidebar.style.display === 'block') {
      mySidebar.style.display = 'none';
    } else {

```

```

        mySidebar.style.display = 'block';
    }
}

// Close the sidebar with the close button
function w3_close() {
    mySidebar.style.display = "none";
}
</script>

</body>

</html>

```

#### **7.1.4 FEATURE 4 : WORK**

##### **Algorithm :**

1. If the user is logged out , he/she is taken to the login page.
2. If we click the button Work it has many features like Womens Formals , Mens Formals , Chappals , Bags , Kids fashion , Fashion Skills.
3. On selecting a particular feature it shows plenty collections .

#### **7.1.5 FEATURE 5 : CHATBOT**

##### **Algorithm :**

1. If the user is logged out , he/she is taken to the login page.
2. In this web application , if the user has to clarify some doubts chatbot is available.  
After receiving the message from customer it immediately sends a reply message.

#### **7.1.6 FEATURE 6 : ADDING TO CART**

##### **Algorithm :**

1. If the user is logged out , he/she is taken to the login page.
2. If a product is selected it moves to cart and further process takes place.

### 7.1.7 FEATURE 7: CONTACT US

**Code:**

```
<!DOCTYPE html>
<html lang="en">
  <head>
    <title>Response</title>
    <link rel="icon" type="image/x-icon" href="images/download.jpg">
    <link rel="stylesheet" href="style.css" />
    <link
      href="https://fonts.googleapis.com/css2?family=Roboto:wght@300&display=swap"
      rel="stylesheet"
    />
  </head>
  <body>
    <div class="signup-box" style="height: 390px; margin-top:175px ;">
      <h1>Response Submission Sucessfull</h1>

      <p style="margin-left: 2em; margin-right: 2em;">Your response has been submitted
sucessfully.

    </p>
    <a style="margin-left: 10em;" href="action_page.html">Back</a>
  </div>
</body>
</html>
```

## 7.2 DATABASE SCHEMA

User			Location		
name	string		lat	float	
email	string		lon	float	
password	string		description	string	
dob	date		time	datetime	
entry-type	string		entry-type	string	
Add field			Add field		

Notification		
lat	string	
lon	string	
time	string	
description	string	
Add field		

## **CHAPTER 8**

### **TESTING**

#### **8.1 TEST CASES**

1. Signup with already registered mail ID.
2. Signup with wrong form data entered.
3. Entering home page with logged out session.
4. Clicking home page buttons with logged out session.
5. Product added to cart page.
6. Every feature in home page must work.

#### **8.2 TEST STRATEGY AND APPROACH**

Field testing will be performed manually and functional tests will be written in detail.

##### **Test objectives**

- All field entries must work properly.
- Pages must be activated from the identified link.
- The entry screen, messages and responses must not be delayed.

##### **Features to be tested**

- Verify that the entries are of the correct format
- No duplicate entries should be allowed
- All links should take the user to the correct page.

#### **8.3. Integration Testing**

Software integration testing is the incremental integration testing of two or more integrated software components on a single platform to produce failures caused by interface defects. The task of the integration test is to check that components or software applications, e.g. components in a software system or – one step up – software applications at the company level – interact without error.

**Test Results:** All the test cases mentioned above passed successfully. No defects encountered.

## 8.4 Acceptance Testing

User Acceptance Testing is a critical phase of any project and requires significant participation by the end user. It also ensures that the system meets the functional requirements.

**Test Results:** All the test cases mentioned above passed successfully. No defects encountered.

## 8.5. Unit testing

Unit testing involves the design of test cases that validate that the internal program logic is functioning properly, and that program inputs produce valid outputs. All decision branches and internal code flow should be validated. It is the testing of individual software units of the application .it is done after the completion of an individual unit before integration. This is a structural testing, that relies on knowledge of its construction and is invasive. Unit tests perform basic tests at component level and test a specific business process, application, and/or system configuration.



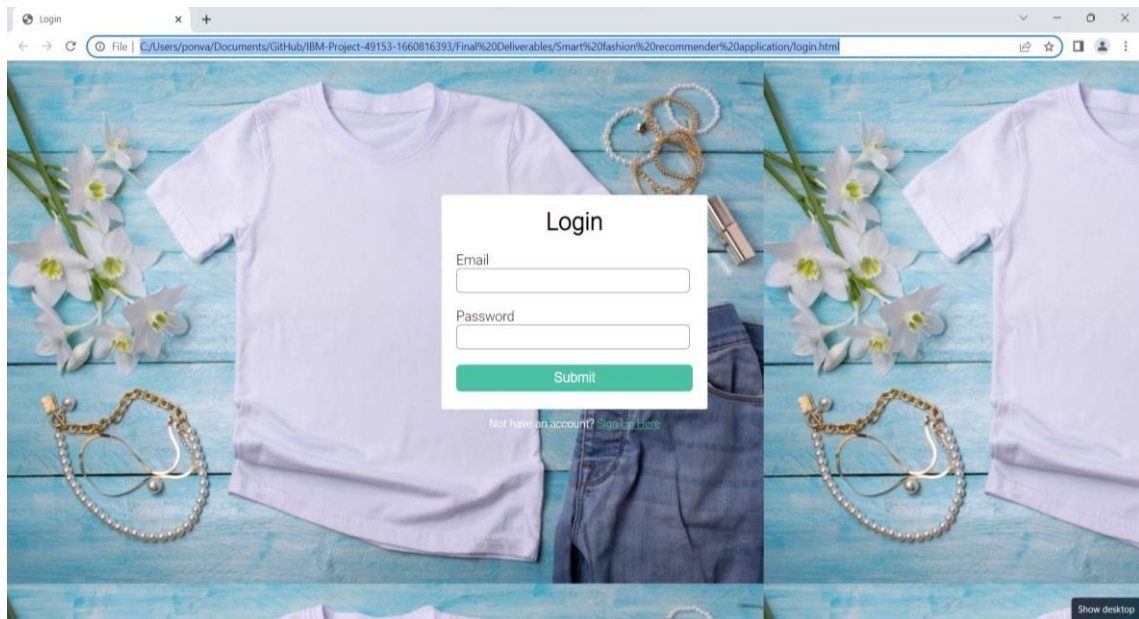
## CHAPTER 9

### RESULTS

#### 9.1 PERFORMANCE METRICS

1. Planned value : Rs.3000
2. Actual value : Rs.1500
3. Hours worked : 60 hours
4. Stick to Timelines : 100%
5. Stay within budget : 100%
6. Consistency : 75%
7. Efficiency : 80%
8. Quality : 80%

#### 9.2 SCREENSHOTS:



Sign Up

First Name

Last Name

Email

Password

Confirm Password

Submit

By clicking the Sign Up button you agree to our [Terms and Condition](#) and [Policy Privacy](#)

Already have an account? [Login here](#)

Trendy Fashion

File | C:/Users/ponva/Documents/GitHub/IBM-Project-49153-1660816393/Final%20Deliverables/Smart%20fashion%20recommender%20application/action\_page.html?

ABOUT TEAM WORK CONTACT LOGOUT

Learn more and start today

Hi! I'm a virtual assistant. How can I help you today?

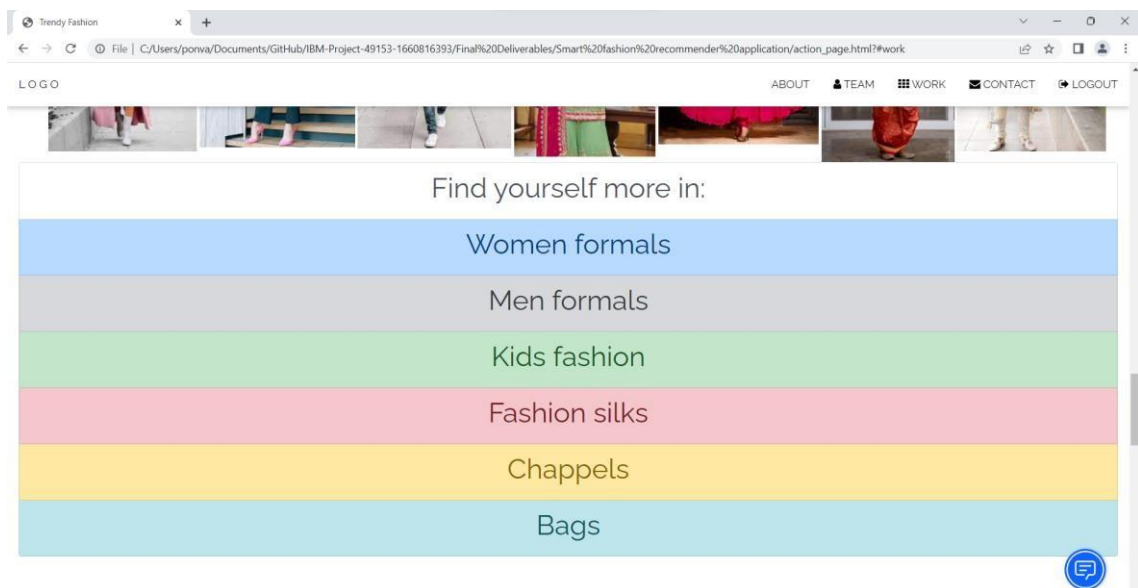
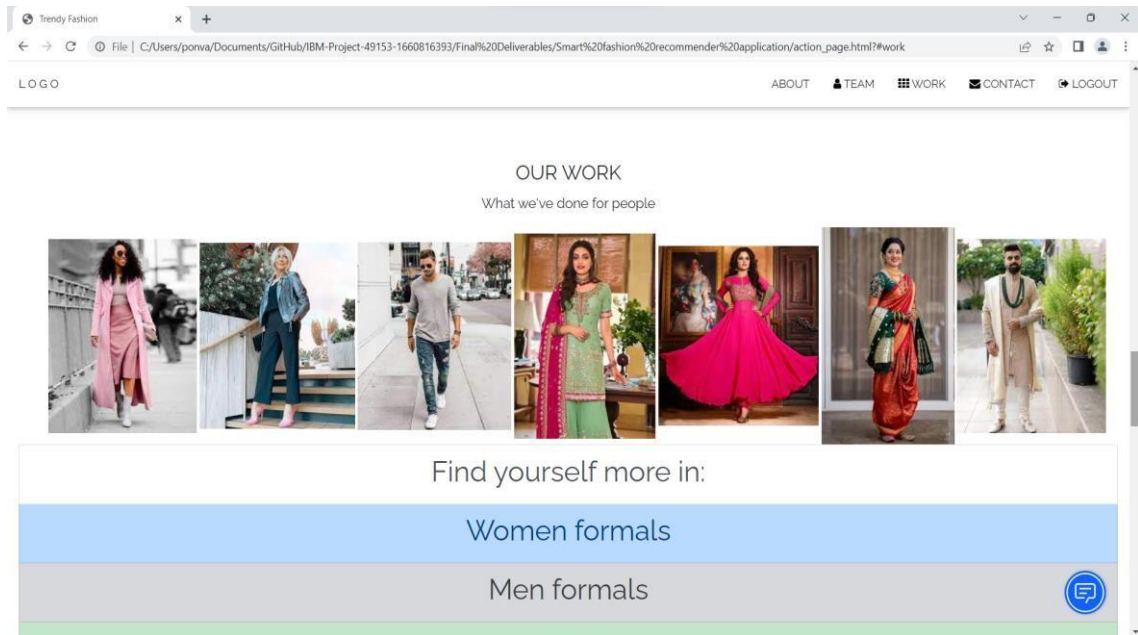
Hi

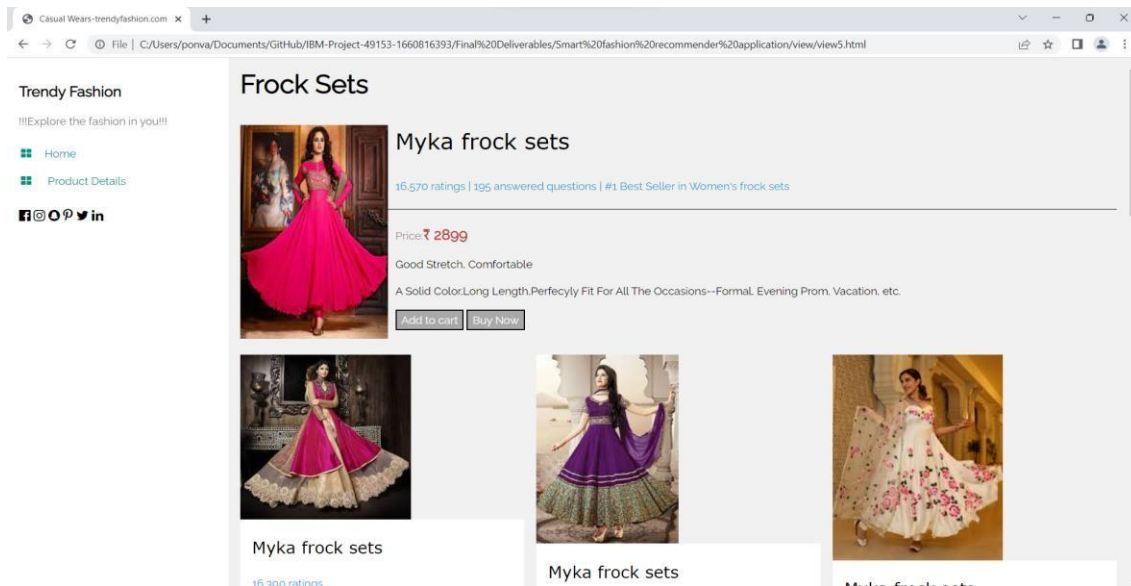
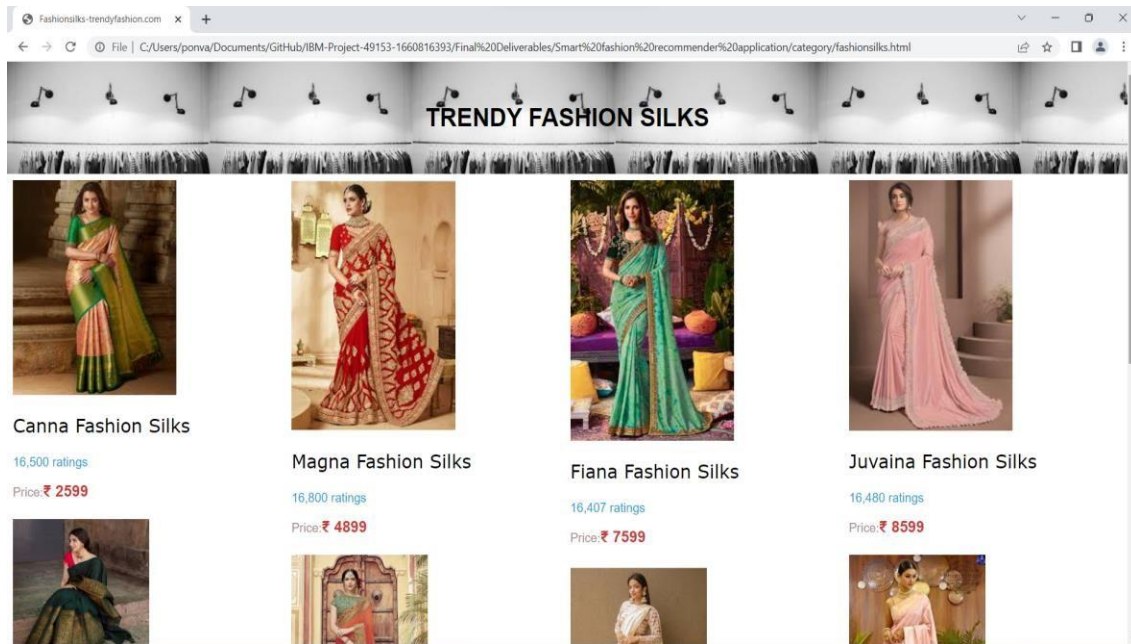
Example: Check account balance

Example: See how I can help

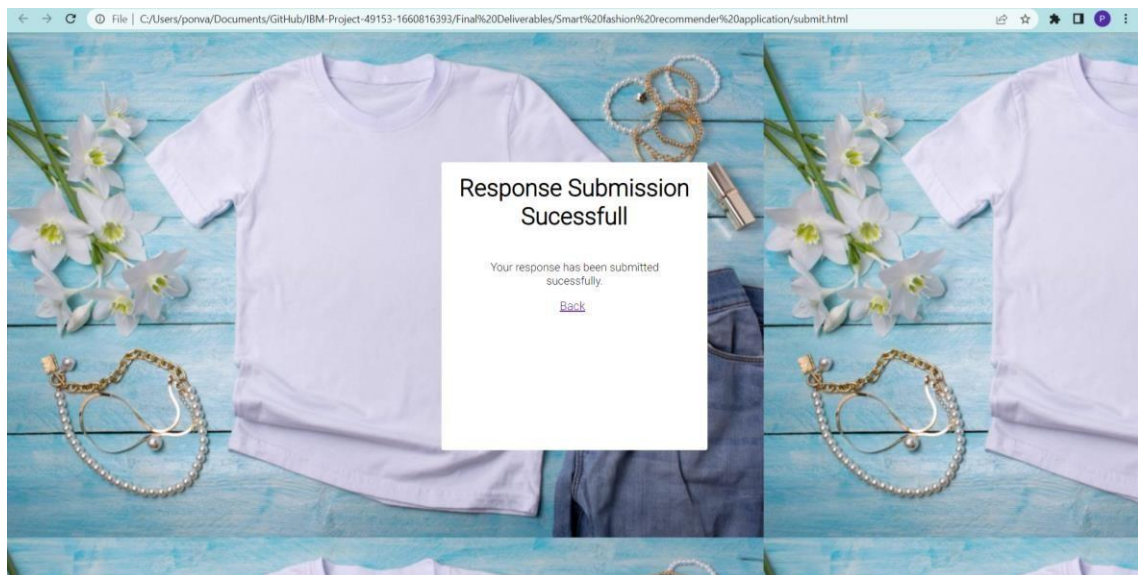
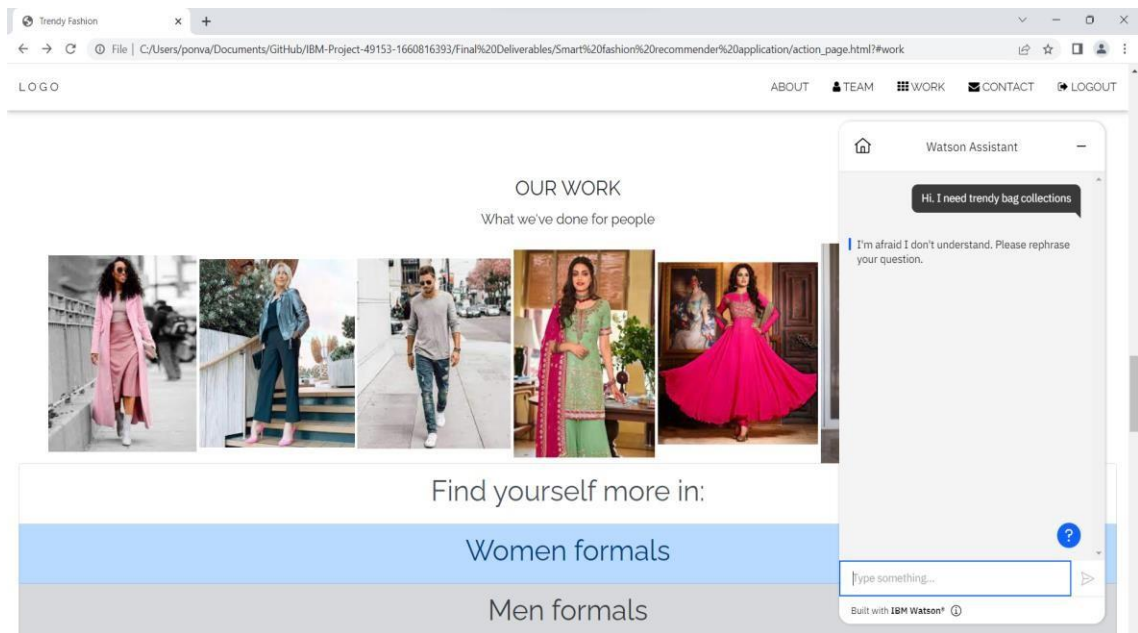
Type something...

Built with IBM Watson®









## **CHAPTER 10**

### **ADVANTAGES AND DISADVANTAGES**

#### **ADVANTAGES :**

1. Low cost.
2. Simple UI.
3. Faster response due to single page web page.
4. Capability of adding many features with ease and less cost.

#### **DISADVANTAGES :**

1. Lack of efficiency . Efficiency of the application needs to be improved.
2. Users are able to buy only a small part of the items of an e-commerce website and on the other hand articles have a limited stock, which can in turn hinder the task of recommender systems working with user-item fit feedback.
3. Lack of consistency between brands

## **CHAPTER 11**

### **CONCLUSION**

Smart recommendation systems have the potential to explore new opportunities for retailers by enabling them to provide customized recommendations to consumers based on information retrieved from the Internet. They help consumers to instantly find the products and services that closely match with their choices. Moreover, different state-of-the-art algorithms have been developed to recommend products based on users' interactions with their social groups. This paper presented a review of the fashion recommendation systems, algorithmic models and filtering techniques based on the academic articles related to this topic. The technical aspects, strengths and weaknesses of the filtering techniques have been discussed elaborately, which will help future researchers gain an in-depth understanding of fashion recommender systems. This web application helps the customers to analyse and choose the products quickly without wasting much time. It also helps the customers to clarify their doubts by interacting with chatbot and provides customer satisfaction. Therefore, the project based on Smart fashion recommender system is implemented successfully.

## **CHAPTER 12**

### **FUTURE SCOPE**

Even though harvested datasets are easy to collect and correspond well to real prediction tasks (e.g., purchase estimate), collected datasets are noisy; they may also not reflect the real semantics of visual preferences, compatibility, or other aspects of a user's experience. For instance, a marketing image may try to promote a pair of shoes by pairing it with a "boring" (non-distracting) outfit; thus curated data may not be any more "real" than harvested data. In future, it rectifies all problems and modifies it to best fashion recommender application.



## **CHAPTER 13**

### **APPENDIX**

#### **CLOUD APP DEVELOPMENT**

Cloud application development is the process through which a Cloud-based app is built. It involves different stages of software development, each of which prepares your app to go live and hit the market. The best Cloud app development teams use DevOps practices and tools like [Kubernetes](#). However, an experienced app development company should ideally be technology agnostic, which means being able to build your Cloud app using any technology you prefer. Most apps built using the Cloud are highly dependent on the Cloud to operate. Application development on Cloud infrastructure allows web and PWA development services to reduce development costs, opens up the possibility to work with remote teams, and reduces project times if used correctly with software development methodologies like Agile. However, not all companies are experienced enough to perform many complex aspects of the app development process using the Cloud. Businesses looking to develop digital products like web-based Cloud applications need to make sure that they work with a trusted Cloud-experienced app development company. Cloud-based application development solutions make data collecting more convenient for businesses. On top of that, security and management are simplified to a greater extent. Cloud app development allows modern businesses and enterprises to create productivity-based applications to enhance the customer experience as well as revenue. Not only this, but Cloud software development solutions also allow businesses to invest in low-code app development, which is again a time- and cost-effective process. Cloud App supports two protocols for device connection and communication MQTT and HTTP.

#### **MQTT**

MQTT is a standard publish/subscribe protocol that is frequently used and supported by embedded devices, and is also common in machine-to-machine interactions.

#### **HTTP**

HTTP is a "connectionless" protocol with the HTTP bridge, devices do not maintain a connection to Cloud IoT Core. Instead, they send requests and receive responses.

## **CLOUD DEVELOPMENT TOOLS :**

### **KUBERNETES**

Kubernetes or k8 is a cloud orchestration platform that allows cloud developers to deploy, maintain, and scale containerized applications. Developers can join together the host running container apps and Kubernetes helps to manage these clusters by automating most of the manual tasks involved. The tool can be used on a private cloud, public cloud, or a hybrid cloud setup and is, therefore, suitable for efficiently building and managing cloud-native applications requiring real-time data streaming, etc. The main advantage of Kubernetes for cloud developers is that it enables container-based application development. It automates operational tasks and lets you control updates and deployments, scale cloud resources while an application is deployed and running, manage services, orchestrate an app across multiple hosts, etc.

### **MICROSOFT AZURE**

It is a cloud computing platform with a range of services from computing resources, networking, storage, analytics, etc. Cloud developers can select and use these services to develop, manage, and scale new or existing applications in the cloud. Microsoft Azure follows a pay-as-you-go model where users are charged an amount for the monthly use of selected cloud resources. Azure supports several open-source technologies and third-party tools that allow businesses to reach their organizational goals with flexibility.

### **CLOUDANT**

A fully managed, distributed database optimized for heavy workloads and fast-growing web and mobile apps, IBM Cloudant is available as an IBM Cloud® service with a 99.99% SLA. Cloudant elastically scales throughput and storage, and its API and replication protocols are compatible with Apache CouchDB for hybrid or multicloud architecture.

**SOURCE CODE LINK :** <https://github.com/IBM-EPBL/IBM-Project-15944-1659606197>

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