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# Fine Recycle System Plan

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Version 1.1

**Presented To:**

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## REVISION HISTORY

Date	Author	Distributed to	Version
03/10/24	All	All	1.0
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<b>REVISION HISTORY</b>	<b>1</b>
<b>1) PRODUCT DESCRIPTION</b>	<b>3</b>
<b>2. TEAM DESCRIPTION</b>	<b>3</b>
<b>3. SOFTWARE PROCESS MODEL DESCRIPTION</b>	<b>4</b>
<b>4. PRODUCT DEFINITION</b>	<b>4</b>
Context Diagram	4
Use Case diagram	6
Use case scenarios	8
<b>5. PROJECT ORGANIZATION</b>	<b>21</b>
Matrix of Responsibilities	21
<b>6. PERT Chart</b>	<b>21</b>
<b>7. VALIDATION PLAN</b>	<b>22</b>
Test Strategy	22
Definition of Done:	22
Success Criteria:	22
Main Test Plan:	22
Wireframes	25
<b>8. RISK ASSESSMENT</b>	<b>34</b>
Risk Identification	34
Risk Prioritization	34
Risk Mitigation	34
<b>9. CONFIGURATION AND VERSION CONTROL</b>	<b>36</b>
<b>10. TOOLS</b>	<b>36</b>
<b>11. ARCHITECTURE</b>	<b>36</b>

## 1) PRODUCT DESCRIPTION

The industry is progressing day after day, and with its progress the number of industrial waste increases, but fortunately some forms of industrial waste are raw materials for other industries, so through this web application we work to provide communication between both sides of the equation: the owners of industrial waste and whom this waste is the raw material for their industry.

Owners of industrial waste can display it on the site in the category designated for this type of raw material and specify details about it, such as its price, quantity, and specifications, and then whoever is interested can contact him through the added contact information and complete the deal.

## 2. TEAM DESCRIPTION

Team Members	Basant Benyamen	Nada Maaman	Mariam Nasser	Habiba Ahmed
Concepts				
HTML			X	X
CSS			X	X
Java Script			X	X
Python	X	X	X	X
SQL Server	X	X		
API				
Unit testing				
Security(hash tables)				
Research	X	X	X	X

The skills needed for this project are:

- Time Management
- Good Communication Skills
- Interpersonal Skills
- Respect each other's ideas
- Experience in programming
- Experience in database management
- Everyone is willing to learn

There is a good diversity in the team's experiences. Mariam and Habiba both have good knowledge of HTML, CSS and JavaScript, and received training in them from ITI and created a project.

As for Basant and Nada, they have knowledge of database issues and also received training in it from ITI.

As for Python everyone has knowledge in and make a project in it. For searching skill, all members of the team have this skill.

The team has no knowledge in API, Unit testing and hash tables, so it will take some time to learn

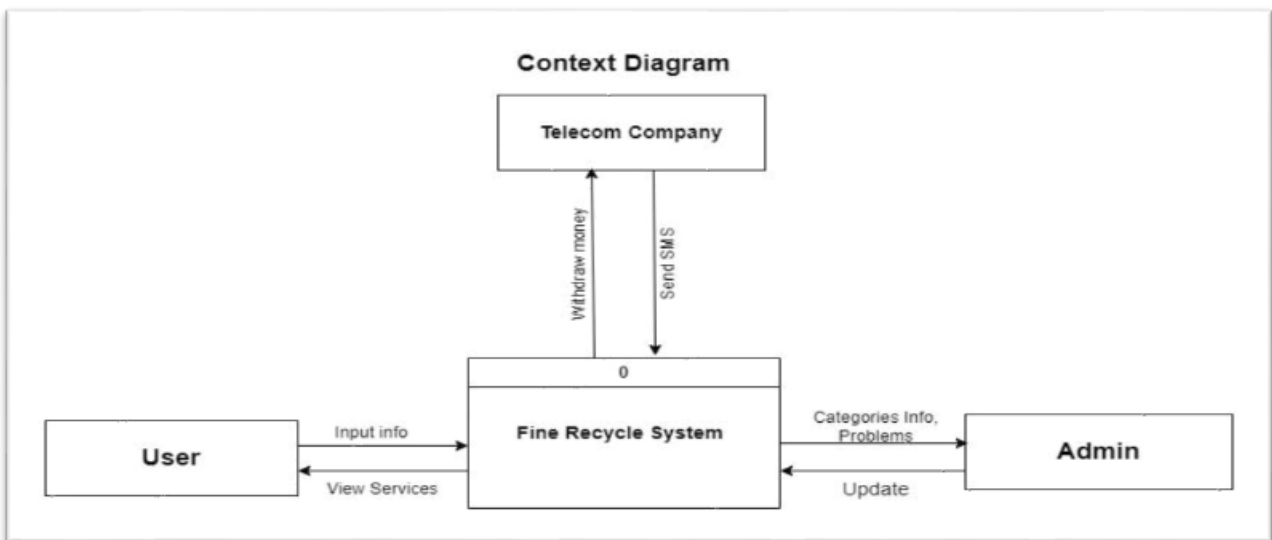
### 3. SOFTWARE PROCESS MODEL DESCRIPTION

We are going to use the waterfall method of website development because of the following reasons:

- 1) Our project has well-defined requirements.
- 2) The team is still in the learning stage and has not yet reached the highly skilled stage so agile method will not be suitable for us.
- 3) It is required to produce a clear documentation for the project.

### 4. PRODUCT DEFINITION

#### Context Diagram



**User:**

User in our project can advertise the materials he provides and their details like price, amount and other details so, he can act as seller, and can browse the website to find materials he needs so he can act as buyer

**Telecom Company:**

In our website, the user (seller) can choose the paid advertising service with its advantages and through the electronic wallet provided by telecom companies, the seller can complete the payment process for this type of advertisement.

**Admin:**

The admin in our website is responsible for complaints, suggestions, and problems related to the website, such as suggestions for adding a new category or complaints regarding warning of advertisement that violates the website's standards and so on.

## Use Case diagram



Figure 1 Use case Part1

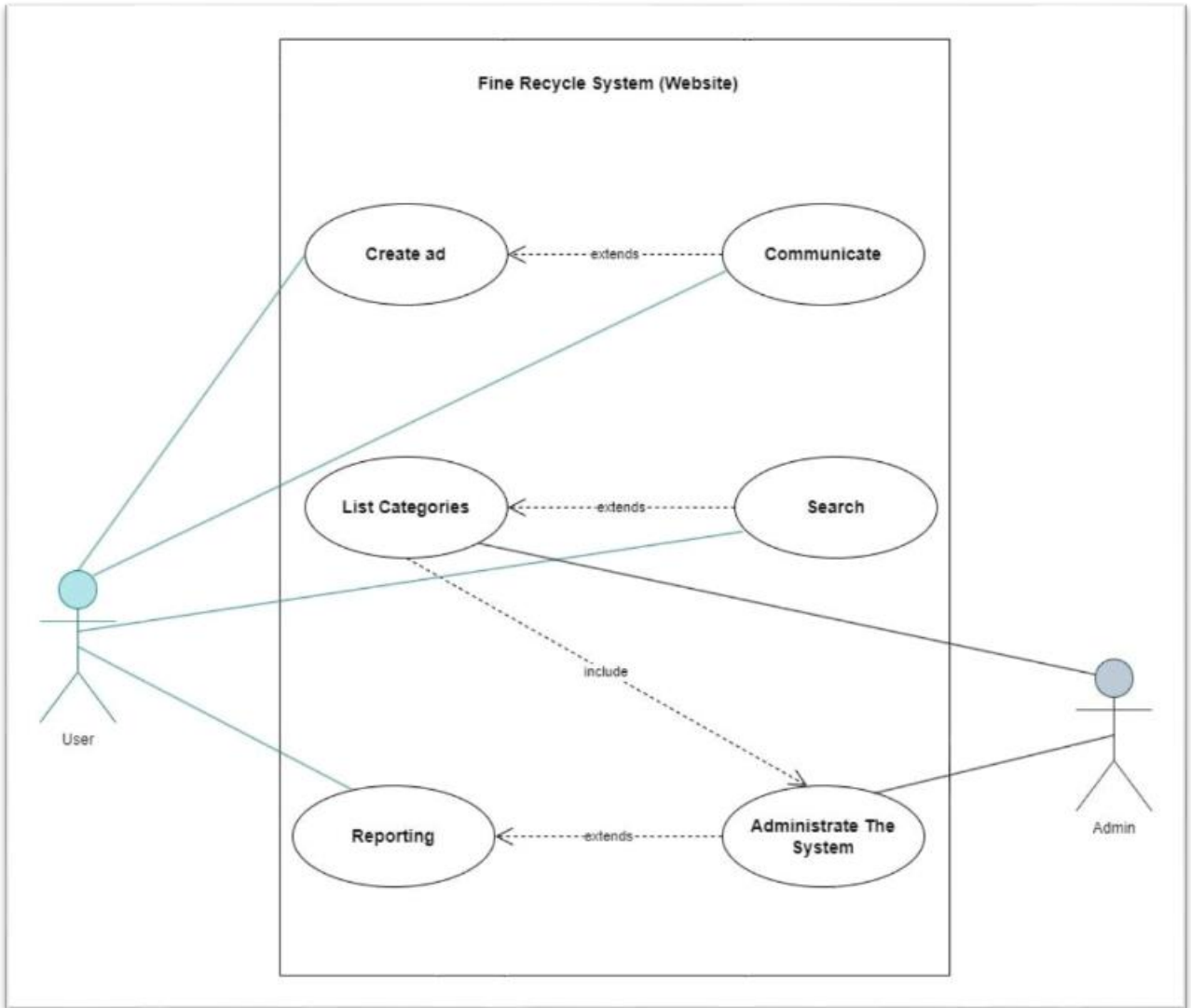


Figure 2 Use case part2

## Use case scenarios

### Use Case #1:

**Name:** Sign up

**Participating Actor(s):** Users

**Entry Conditions:** User clicks create Advertisement button and it is the first time for him to create an Advertisement

**Exit Conditions:** Account is created and the user can publish his Advertisement

**Flow of Events:**

1. The user enters the required information (name, password, phone number)
2. User click create account button
3. If the entered Data is Validated show message 'create account successfully'
4. The user is redirected back to the platform and prompted to log in using his newly created account.

**Special Requirements:** If the entered credentials are invalid or username is already in use, the system prompts the user to enter valid information



## Use Case #2:

**Name:** login

**Participating Actor(s):** Users

**Entry Conditions:** The user has previously created an account and he wants to access any feature on the website .his session has ended, and he is not currently logged in.

**Exit Conditions:** the user logged in to his account and he have a complete access to all features

### Flow of Events:

1. The user wants to publish an Advertisement or to get communication information about a seller
2. Upon detecting the expired session, the system prompts the user to log in again. A login form containing fields for the user's name and password is displayed.
3. After entering their credentials, the user clicks on the "Login" button within the login form to submit the information.
4. Verify the user's credentials against the database to authenticate their identity. If the entered information match an existing user account, the authentication is successful, and the user is automatically logged in.

**Special Requirements:** If the entered incorrect credentials, the system displays an error message prompts the user to check his name and password and try again.

### Use Case #3:

**Name:** manage profile

**Participating Actor(s):** Users

**Entry Conditions:** The user should have an account and already logged-in

**Exit Conditions:** The user profile is updated according to the desired changes

**Flow of Events:**

1. The user selects the profile icon- section
2. The user selects edit profile option
3. The system displays the current information
4. The user selects the desired information (Email, phone, location...) to change
5. The user modifies the selected field
6. The system will display an alert to the user to confirm and save change
7. The system will validate the updated information and update it

The system will display a saved successfully message

- **Special Requirements:** If the user tries to save the changes and there was an invalid input such as invalid email address or phone number the system must show an error message to inform the user that there is invalid information

## Use Case #4:

**Name:** create ad

**Participating Actor(s):** Users

**Entry Conditions:** The user should have an account and already logged-in

**Exit Conditions:** The Advertisement is created

### Flow of Events:

1. The user selects the "create Advertisement" button
  2. The system displays the Advertisement creation form
  3. The user fills the required details such as (phone, location, price, images, description, category)
  4. The user selects the publishing plan (free, premium highlighting, premium priority placement, premium additional visibility)
  5. If the user chooses the free plan the Advertisement will be published after clicking submit
  6. If the user selects a premium plan the system will redirect the user to the payment page.
  7. The user will complete payment and click "submit"
  8. The system will check if the required fields are filled or not
  9. The system will create and save the Advertisement to the database
  10. The system will display a confirmation message "the Advertisement is created successfully"
- Special Requirements** If the user didn't fill out the required fields such as (location, phone) the system will notify the user to complete these fields
- If there was an expected error the system must show an error message to inform the user about the error
  - If there is an error in the payment process the system will inform the user and the Advertisement will not be posted until the payment process is properly done

## **Use Case #5:**

**Name:** payment

**Participating Actor(s):** User (seller)

### **Entry Conditions:**

- The user has successfully signed up for the website.
- The user has logged into the website.
- The user clicked on create Advertisement.
- The user entered the info of goods he want to sell and choose one of paid programs.

**Exit Conditions:** Complete the payment process and publish the seller's Advertisement.

### **Flow of Events:**

1. Choose one of the available electronic wallet he wants to pay with (Vodafone, Orange and Etisalat)
2. Enter its number.
3. Enter the code which will arrive on phone which this phone number.
4. Click on confirm button.

**Special Requirements:** If the required amount of money is not present in the wallet, an alert message appears on the website to the user

## **Use Case #6:**

**Name:** Manage Ad

**Participating Actor(s):** Users (seller)

### **Entry Conditions:**

- The user has successfully signed up for the website
- The user has logged into the website
- The user has already created the Advertisement he want to manage.

**Exit Conditions:** New status of the Advertisement

### **Flow of Events:**

Choose if the seller want to delete of edit the Advertisement

➤ Delete :

1. Click on delete button.
2. Show him a message to confirm deletion.

➤ Edit:

1. Click on edit button.
2. Edit the Advertisement.
3. Show him a message to confirm modifications

## **Use Case #7:**

**Name:** Add to favorites

**Participating Actor(s):** Users (Buyer)

### **Entry Conditions:**

- The user has successfully signed up for the website.
- The user has logged into the website.

### **Exit Conditions:**

Adding the advertisement to favorite list of this user

### **Flow of Events:**

1. Click on the start sign for an Advertisement.
2. The color of the start will be changed.

**Special Requirements:** If the user did not log in show message to the user to login first

## **Use Case #8:**

**Name:** Communication

**Participating Actor(s):** Users (Buyer)

### **Entry Conditions:**

- The user has successfully signed up for the website
- The user has logged into the website

**Exit Conditions:** Buyer be able to communicate with seller.

### **Flow of Events:**

1. Click on communication button.
2. Show him the communication info of the seller.

**Special Requirements:** If the user did not log in show message to the user to login first

## **Use Case #9:**

**Name:** List Categories

**Participating Actor(s):** Users

### **Entry Conditions:**

User is logged into the platform.

User navigates to the "Categories" section of the platform.

### **Exit Conditions:**

User successfully views the list of categories available on the platform.

### **Flow of Events:**

1. User access the website and login to his account.
2. User navigates to the "Categories" section.
3. Displays a list of categories available for users to browse.
4. User reviews the list of categories to find the one relevant to their needs.

### **Special Requirements:**

- The list of categories should be clearly organized and easily accessible to users. Categories should be regularly updated and curated to ensure relevance and accuracy.



## **Use Case: 10#**

**Name:** search

**Participating Actor(s):** Users

### **Entry Conditions:**

- User is logged into the platform.
- User has navigated to a specific category within the "Categories" section of the platform.

### **Exit Conditions:**

- User successfully finds the desired item within the chosen category.

### **Flow of Events:**

1. Use case 9
3. The user identifies a search bar or input field within the chosen category.
4. User enters a keyword or phrase related to the item they are looking for.
5. The platform performs a search within the selected category based on the user's input.
6. Relevant items matching the search query are displayed to the user.
7. User reviews the search results and selects the desired item.

**Use Case: 11#**

**Name:** reporting

**Participating Actor(s):** Users

**Entry Conditions:**

-The user should be logged into the system

**Exit Conditions:**

- The report is submitted successfully.

**Flow of Events:**

1. the user logs in
2. The user selects the "create a report "section.
3. The user creates the report
4. The user clicks submit.
5. The system displays" the report is submitted successfully" message

**Special Requirements:**

-If there was an error in the system while submitting the report the system will alert the system administrator that there is an error

## **Use Case: 12.1#**

**Name:** System Administration (Manage reports)

**Participating Actor(s):** System administrator

### **Entry Conditions:**

- The System administrator should be logged into the system

### **Exit Conditions:**

- The reports are viewed and if there was an action was needed is done

### **Flow of Events:**

1. The system administrator logs in
2. The user selects the “manage reports” section
3. The system shows views the reports
4. The system administrator views the reports and take an action if needed (manage categories, manage users ...)

### **Special Requirements:**

- If there was an error in the system while viewing and taking actions to the reports the system will alert the system administrator that there is an error

## **Use Case: 12.2#**

**Name:** System Administration (manage users)

**Participating Actor(s):** System administrator

### **Entry Conditions:**

- The System administrator should be logged into the system

### **Exit Conditions:**

- The desired changes are completed successfully (user managing)

### **Flow of Events:**

1. The system administrator logs in
2. The system administrator selects “manage user” section
3. The system administrator searches the user’s account and selects the needed action
4. The system administrator saves the changes

### **Special Requirements:**

- If there was an error in the system while managing users the system will alert the system administrator that there is an error

## 5. PROJECT ORGANIZATION

### Matrix of Responsibilities

Team Members	Basant Benyamen	Nada Maaman	Mariam Nasser	Habiba Ahmed
Concepts				
HTML			X	X
CSS			X	X
Java Script			X	X
Python	X	X		
SQL Server	X	X		
API	X	X		
Unit testing	X	X		
Security(hash tables)	X	X	X	X
Research	X	X	X	X

## 6. PERT Chart



## 7. VALIDATION PLAN

### Test Strategy

#### Definition of Done:

- The web application meets all functional requirements specified in the project scope.
- The application is user-friendly, intuitive, and accessible.
- All features are thoroughly tested and free of critical defects.
- The application is deployed and ready for use by the due date of the project.

#### Success Criteria:

- The web application functions properly and conveniently.
- Users can seamlessly navigate through the website to publish an advertisement for industrial waste or search for it.
- Listings accurately represent the industrial waste materials available for sale.

#### Main Test Plan:

##### 1. User Registration and Authentication:

- Test user registration process to ensure users can create accounts successfully.
- Verify authentication mechanisms such as login, logout, and password reset.

##### 2. Listing Industrial Waste Materials:

- Test the process of creating and posting an advertisement.
- Ensure that users can provide all necessary details and specifications for their material.

### **3. Searching for Industrial Waste Materials:**

- Test the search functionality to ensure users can search for the material effectively.
- Ensure that search results are accurate and relevant to the user's query.

### **4. Opting for Premium Feature:**

- Test the process of opting for the premium feature during advertisement creation.
- Verify that users can easily select and pay for the premium placement option.

### **5. Payment Process:**

- Test the payment process to ensure it is smooth and error-free.
- Verify that users receive confirmation of payment and premium placement.

### **6. Display of Promoted advertisement:**

- Test the display of promoted listings in search results.
- Ensure that promoted listings appear at the top of search results for the respective material.

### **7. Differentiation of Promoted advertisement:**

- Verify that promoted listings are clearly distinguished from regular listings.
- Test visual cues to indicate promoted listings.

### **8. Integration with External Platforms:**

- Test the integration with the external payment platform's API.
- Verify that users can securely make payments for the premium feature.

### **9. Performance and Scalability Testing:**

- Conduct performance testing to ensure the application can handle expected user loads.
- Test scalability to ensure the application can accommodate growth in user base and data volume.

### **10. Accessibility and Usability Testing:**

- Conduct usability testing to gather feedback on user experience and interface design.

### **11. Security Testing:**

- Ensure sensitive user data is handled securely and protected from unauthorized access.
- Verify that sensitive payment information is handled securely and encrypted.

### **12. Deployment and Environment Testing:**

- Test the application in different browsers and devices to ensure cross-browser compatibility and responsiveness.

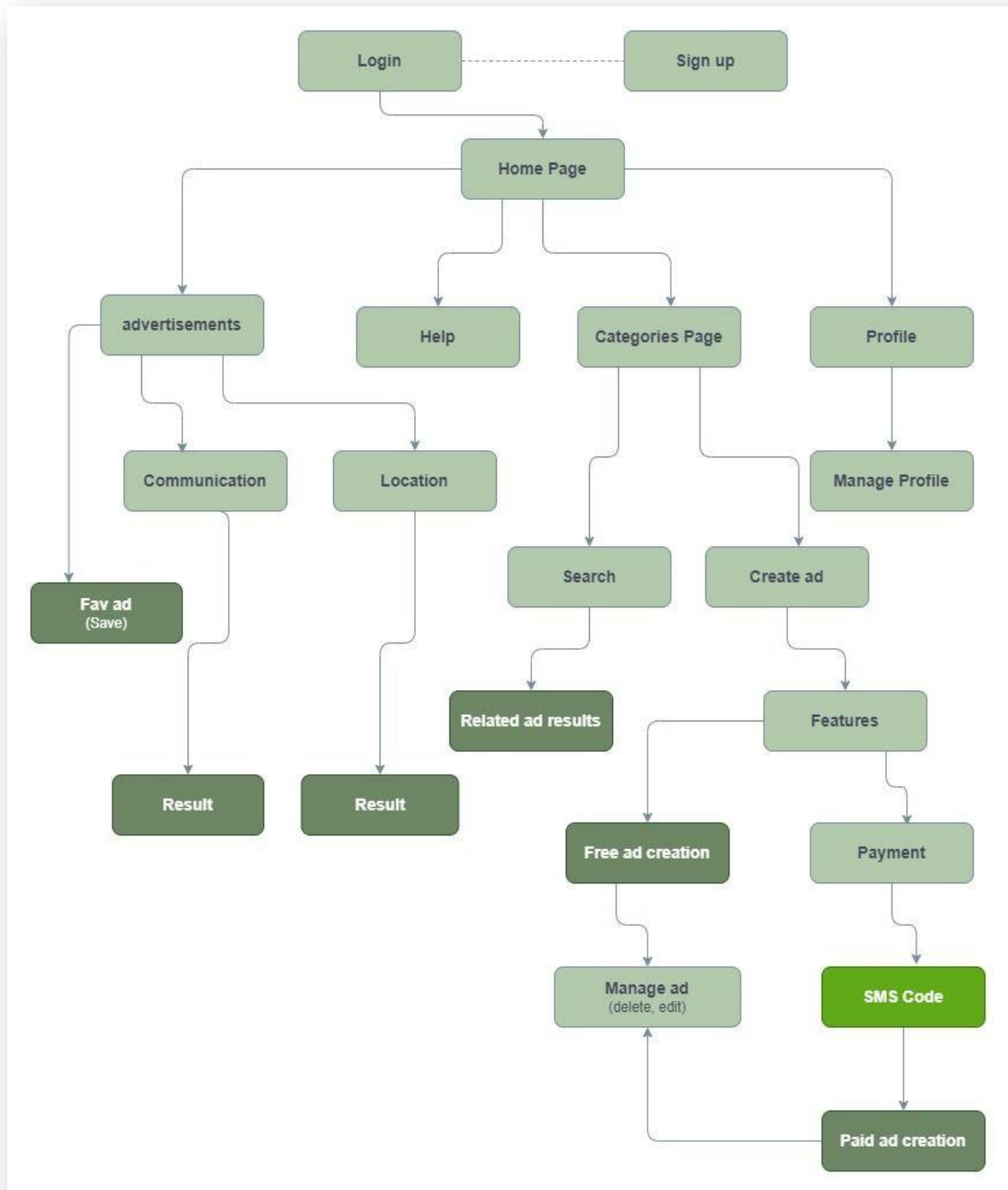
### **13. User Acceptance Testing (UAT):**


- Involve end users in UAT to ensure the application meets their requirements and expectations.
- Address any feedback or issues identified during UAT before finalizing the release.

By following this test strategy and executing the main test plan, we aim to ensure that our web application is thoroughly tested and ready for use by the project's due date, meeting the defined success criteria and satisfying the needs of our customers and end users.



## Wireframes



Sign up

Create Account


Email

Username

Password

Confirm Password

Create

Login

Sign up

Username

Password

Login



Help Login

Sign Up

# Fine Recycle

Community for buying and selling materials easily  
Welcome to our Community

Wood

Metals

Glass

Plastics

Textiles

Leather

Paper

Others



More details



Price: 150.000€



More details



Price: 150.000€



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Search

Create ad

## Related ad

More details

.....

.....

.....

.....

Price: 169.000€

More details

.....

.....

.....

.....

Price: 100.000€

## Follow us



## Your ad

<b>Category</b> <input style="width: 90%;" type="text"/>	<b>Amount</b> <input style="width: 90%;" type="text"/>	<b>Price</b> <input style="width: 90%;" type="text"/>
<b>Description</b> <div style="border: 1px solid #ccc; height: 80px; margin-top: 5px;"></div>		<div style="display: flex; align-items: center; justify-content: center;"> <b>Add Photos</b> </div> <div style="border: 1px solid #ccc; height: 150px; margin-top: 5px;"></div>
<b>Location (Optional)</b> <input style="width: 100%;" type="text"/>		
<b>Phone Number</b> <input style="width: 100%;" type="text"/>	<b>What-sap (Optional)</b> <input style="width: 100%;" type="text"/>	
<b>Facebook Link (Optional)</b> <input style="width: 100%;" type="text"/>		
<div style="background-color: #009682; color: white; padding: 10px 20px; border-radius: 10px; display: inline-block;"> <b>Publish</b> </div>		

<div>Free</div> <div>*****</div> <div>*****</div> <div>*****</div>	<div>Premium highlighting</div> <div>*****</div> <div>*****</div> <div>Price: 100.00</div>	<div>Premium Priority Placement</div> <div>*****</div> <div>*****</div> <div>Price: 250.00</div>	<div>Premium additional visibility</div> <div>*****</div> <div>*****</div> <div>Price: 520.00</div>
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### Payment

Enter an E-wallet number

Enter SMS code

Send SMS

Confirm

### Communication

Facebook Link

Phone Number

what-sap Number

### Location

Copy Link

## Help

Any problems

Suggestions

Done





## Manage Profile



Change profile photo

### Email

xx

### Username

xxxxxxxxxx

### Change Password

old password

new password

confirm new password

Update

## 8. RISK ASSESSMENT

### Risk Identification

Risk of **unauthorized access** to the user information can lead to consequences financially, personal information theft and misuse of personal information and it can damage the reputation of the website.

The risk of **Website down time** its cause by technical problems that can make the website to be inaccessible to the users and that can effect customers trust and sales.

Another risk the website can face is **technical vulnerabilities** the software vulnerabilities can affect the system security by leading to unauthorized access to the system, data breach.

**Inappropriate content posting** can affect the user satisfaction it can also affect the website reputation and it can lead to legal consequences.

**Payment problems** will lead to customer dissatisfaction

**Cyber-attacks** represents a significant risk to the security and integrity of a website. As examples of these attacks (ransomware, or phishing attempts).

### Risk Prioritization

1. Cyber attacks
2. Website downtime
3. Payment problems
4. Technical vulnerabilities
5. Unauthorized posting of inappropriate content

### Risk Mitigation

#### 1. Cyber-attacks:

- Implement robust cybersecurity measures, including firewalls, intrusion detection systems, and antivirus software.
- Regularly update software and systems to patch known vulnerabilities.
- Train employees on cybersecurity best practices, including recognizing and avoiding phishing attempts and other social engineering tactics.
- Implement multi-factor authentication to enhance account security.

## **2. Website downtime:**

- Utilize redundant servers and backup systems to minimize the impact of downtime.
- Monitor website performance and uptime continuously using website monitoring tools.
- Regularly test backup and disaster recovery procedures to ensure their effectiveness.

## **3. Payment problems:**

- Use different payment options so the user is not stuck if one stops working.
- Have a backup plan to switch to another payment option if the main one fails.
- Check regularly to make sure payments work smoothly and fix any problems early.
- Make it easy for customers to get help if they have payment issues.

## **4. Technical vulnerabilities:**

- Keep the software and systems up to date to fix any known problems.
- Check regularly for security issues and fix them to keep your system safe.
- Follow safe coding rules when making new software to prevent problems.
- Only let authorized people access important information to keep it secure.
- Teach the employees how to stay safe online and what to do if something goes wrong.

## **5. Unauthorized posting of inappropriate content:**

- Provide users with reporting mechanisms to flag inappropriate content for review.
- Educate users on community guidelines and acceptable use policies.
- Monitor user-generated content regularly to identify and address violations.
- Have a clear process in place for reviewing and responding to reports of inappropriate content, including escalation procedures if necessary.

## 9. CONFIGURATION AND VERSION CONTROL

For the website: X.Y

X = Major Releases

Y = Bug Fixes

Example: First major release, second bug fix: Version 1.2

Every modification made to the project will be added the GitHub repo with the code of release and description of modification to be access to all team members

## 10. TOOLS

- **SQL Server Management Studio:** To create and manage the database
- **Visual Studio Code:** To write and execute commands of -:
  - HTML
  - CSS
  - JavaScript
  - Python

## 11. ARCHITECTURE

- Computers for programming and testing