

# FCS Final Project

By group 26 : cyberSecurityP1

## User Manual

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### 1. Introduction

Welcome to Netlink hosted on <https://192.168.3.8> , a platform where users can buy and sell products, interact via chat, and manage their profiles securely. This manual will guide you through all the functionalities of the website.

### 2. Getting Started

#### 2.1 Signing Up

- Click "Sign Up" on the homepage.
- Fill in your details:
  - Email
  - Phone Number
  - Username
  - Full Name
  - Password (must meet the requirements)
- Once filled the form, you will be redirected to the profile setup page where you have to provide profile photo (mandatory and size must not be more than 2MB) ,bio and display name.
- After confirming you will be landed on the marketplace page where you can explore further.

#### 2.2 Logging In

- By default you will be on the login page, but if you are on the register page, click on Already have an account **Log in**.
- Enter your Phone number/email/username and password.

- Click "Login" to access your account.
- After that you will be asked to fill in the otp displayed as the alert, use only the virtual keyboard, the regular keyboard will not work.

## **2.3 Forgot Password & Reset**

Click "Forgot Password?" on the login page.

Enter your registered email.

You will be redirected to the reset page, enter a new password, and confirm.

## **3. User Profile Management**

### **3.1 Editing Bio & Username**

- Go to "Profile" then click on "Edit Profile" or you can click on settings.
- Update your username and bio and profile picture (by clicking upload).
- Select an image (max 2MB).
- Click "Save".

## **4. Marketplace**

### **4.1 Listing a New Item**

- Go to "Home" > "List an Item".
- Fill in details:
  - Product Name
  - Description
  - Price
  - Upload Image (max 2MB)

- Click "List Item".

## **4.2 Browsing & Purchasing Items**

- Go to "Home".
- Browse products.
- Click "Add to Cart" if interested.
- You can see your items being added in your cart.

## **5. Shopping Cart & Checkout**

### **5.1 Adding Items to Cart**

- Click the Cart icon in the navigation bar.
- Review selected items.

### **5.2 Updating Cart Quantity**

- In the cart, adjust the quantity or remove an item or clear the cart.
- Click "Update" to save changes.

### **5.3 Checkout Process**

- Click "Checkout".
- Enter Name, email and shipping address.
- Enter card details (securely processed).
- Click "Confirm Payment".

- After successful payment, your order will be placed and you'll be redirected to the marketplace, and the cart will clear.

## 6. Managing Listed Products

### 6.1 Editing a Listed Item

- Go to "Profile" and see under the Listed items section.
- For the product to be modified Click "Edit" on the product.
- Modify details and click "Save Changes".

### 6.2 Deleting a Listed Item

- Go to "Profile" and see under the Listed items section.
- Click "Delete" on the product.
- Confirm deletion.

## 7. Messaging (One to One)

First open the message page from the **Message** button on the sidebar of Home Page.

### 7.1 Sending and receiving chats

- To send and receive chat messages with a user select the user from the users list on the sidebar.
- One user is selected and the **Chat Header** will change from "Select a conversation" to "Chat with user X". X is the user selected.
- Now all the previous chats with the selected pair of users will fetch and all the messages will appear in the **Chat Messages Box**.

- You can type the message in the **Type a message** text input box and send the message either by clicking the **Send** button or just by pressing the **Enter Key** on your keyboard.
- You will receive whatever message the user at the other end is sending while you are live in the chat. Otherwise the message will save in the database and fetch next time you open the user's chat.

## 7.2 Sharing of Images and Videos

- To share images click on the **Image** Button after selecting the user for conversation.
- It will show a dialog box to select the image you want to send, select any image whose size is less than 2MB and click open it will be sent to the user.
- To share videos click on the **Video** Button after selecting the user for conversation. And from the dialog box select any video less than 2MB, and click open it will be sent to the user.

## 8. Group Chats

Click on the **Group Chats** button in the sidebar on the Messages page.

### 8.1 Creating a new group

- To create a new group click on the **Create Group** button in the sidebar. A dialog box will show up to enter name and description and allow you to select the user for creating a group by clicking on them.
- Next a pop will show if the group was created successfully or not.
- If successfully created the group will show in the groups list in the sidebar.
- Select any group you want to chat in and send messages. Each group message will be accompanied by the username of the user who sent it.

## 9 Admin Capabilities

The admin is hosted on <https://192.168.3.8/admin> . Admin can monitor users and verify or suspend them.

### 9.1 Manage Users:

- Activate: Reactivate a suspended user account.
- Delete: Permanently delete a user account from the system.

### 9.2 Security Logs:

- Monitor actions performed by the admin (e.g., user status changes) for accountability.

### 9.3 Verify Document

- View Posts: View posts associated with a user.
- Verify Documents

### To login as Admin:

User : admin

Password: admin123

## Requirements

- System Requirements
  - Server:
    - PHP 8.1 or later.
    - MySQL database.
  - Client:
    - Modern web browser with JavaScript enabled.
    - Dependencies
  - PHP Extensions:
    - curl, json, and mbstring for Stripe integration.
  - Composer:
    - Used to manage dependencies like Stripe.

## Proxy Server Configuration File - NGINX

Saved at “/etc/nginx/sites-available/netlink”.

```
GNU nano 6.2 /etc/nginx/sites-available/netlink
server {
    listen 80;
    server_name 192.168.3.8;

    # Redirect all HTTP requests to HTTPS
    return 301 https://$host$request_uri;
}

server {
    listen 443 ssl;
    server_name 192.168.3.8;

    ssl_certificate /home/iiitd/ssl/localhost.crt;
    ssl_certificate_key /home/iiitd/ssl/localhost.key;
    location / {
        proxy_pass http://localhost:8000;
        proxy_set_header Host $host;
        proxy_set_header X-Real-IP $remote_addr;
    }
    location /admin/ {
        proxy_pass http://localhost:8001;
        proxy_set_header Host $host;
        proxy_set_header X-Real-IP $remote_addr;
        proxy_set_header X-Forwarded-For $proxy_add_x_forwarded_for;
        proxy_set_header X-Forwarded-Proto $scheme;
    }
}
```

## Instructions

1. The application is running as two **tmux** sessions namely “**netlink**” and “**netlink-admin**” on localhost ports **8000** and **8001** respectively.
2. Live tmux sessions can be listed with “**tmux list-sessions**”.

```
iiitd@fcs26:~$ tmux list-sessions
netlink: 1 windows (created Sat Apr 5 15:31:54 2025)
netlink-admin: 1 windows (created Mon Apr 7 12:20:15 2025)
```

3. to attach with any of the live sessions use command “**tmux attach -t <netlink/netlink-admin>**”.

```
iiitd@fcs26:~$ tmux attach -t netlink
```

4. The php applications are running through “**php -S localhost:8000**” for netlink and “**php -S localhost:8001**” for netlink-admin.

5. This command allows you to run the php application as a development server and you can see all the requests of **GET** and **POST** through the php server.
6. To detach the terminal from the tmux session press **Ctrl + B** and then **D**.
7. This way you can detach from the terminal without terminating the running php server.
8. The application database is based on **mysql** which can be accessed through command line “**sudo mysql -u root**”.

```
iiitd@fcs26:~$ sudo mysql -u root
[sudo] password for iiitd:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 2939
Server version: 8.0.41-0ubuntu0.22.04.1 (Ubuntu)

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owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> |
```

9. There is another user “**fcs26**” for accessing the database but unlike root it is only privileged for Database used in the project i.e. **Netlink**.
10. Connection to database Netlink can be established through command line “**use netlink;**”

```
iiitd@fcs26:~$ sudo mysql -u root
[sudo] password for iiitd:
Welcome to the MySQL monitor.  Commands end with ; or \g.
Your MySQL connection id is 2939
Server version: 8.0.41-0ubuntu0.22.04.1 (Ubuntu)

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affiliates. Other names may be trademarks of their respective
owners.

Type 'help;' or '\h' for help. Type '\c' to clear the current input statement.

mysql> use netlink;
Reading table information for completion of table and column names
You can turn off this feature to get a quicker startup with -A

Database changed
mysql> |
```