# Project Report

# Of

# Programming language I Lab

# (CSE115L.8)

## Submitted to

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# SkinFit: Personalized Skincare Routine Recommender

## 1. Introduction

This project, called SkinFit, is a simple skincare routine recommender built using c programming language. It gives the user a basic skincare routine based on its skintype (like Oily, Dry, Combination, or Sensitive) and the time of day (Day or Night).

The main purpose of this project is to help users receive a quick, customized skincare guide, especially for those who are unsure of what products to use or how to structure their skincare routine.

## 2. Background

Skincare is a daily concern for many people, and finding a proper routine based on skin type can be difficult, especially for beginners. Many people end up following generic routines or using random products without knowing their skin type or needs. SkinFit aims to solve this by generating a suitable routine based on dermatologically backed principles.

*Related Work:*

- Websites like WebMD and health blogs provide generalized routines but lack personalization and interactivity.

- Apps offer skincare suggestions but are often complicated or require signups.

- Many people rely on skincare routines shared by influencers, but these often lack scientific backing or personalization, and what works for one person might not work for another.

*What we used to build SkinFit:*

- Standard C libraries like <stdio.h>, <string.h>
- File handling to save skincare steps

## 3. Purpose and Benefits

*Objectives:*

The main goal of our project,  SkinFit, is to make skincre simple and personalized for everyone. Here is what we aimed to achieve:

- Create a basic skincare routine that changes based on user's skin type (Oily, Dry,Combination,Sensitive) and whether it's day or night.
- Give users the ability to view,add,update,delete,or search for steps in their routine as they see it.
- Save routines so users don't lose their customized steps when they close the program.

*Benefits:*

- This system gives personalized recommendations which is more relevant to the user.
- It's easy to use even if they don't know much about skincare.
- Offers flexibility to modify the routines as needed.
- Lightweight and fast since it's a C program.

## 4. System Features

- Personalized routine generation
- View current skincare routine
- Add a new step to the routine
- Delete an existing step
- Update a routine step
- Search steps by keyword

- Save and load routine using file handling

## 5. User Stories

*User Story 1:*

As a skincare beginner, I want to get a routine based on my skin type so that I can follow a safe and effective regimen.

*Use Case:*

1. User enters skin type as “Oily” and time as “Day”.
2. Program suggests:
    - Gel cleanser
    - Oil-free moisturizer
    - Sunscreen (SPF 30+)

*User Story 2:*

As a regular user, I want to customize my routine so that it fits my needs better.

*Use Case:*

1. User views existing routine
2. Chooses to update Step 2 to a different moisturizer
3. Saves the new version of the routine

## 6. Limitations

- Only supports up to 10 steps in the routine .
- Basic file storage-no advanced database or cloud integration,
- No real-time recommendation or skincare product brand –the routne is general and doesn’t include specific brand recommendation.
- User input must be accurate-if users type their skin type or time od the day incorrectly ( e.g.,”oily” instead of “Oily” ), the program won’t recognize it.

## 7. Topics Covered

- Structures in C
- Arrays and strings
- File handling (fopen, fscanf, fprintf, fgets)
- Conditional statements (if,else)
- Switch-case statements
- Looping (for, while, do-while)
- Modular programming (functions)

## 8. Advantages

- Lightweight and runs on any C compiler
- User-friendly command-line interface
- Routine data remains accessible through file storage
- Easy customization of routine
- Personalized recommendation in seconds

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## 9. Screenshots

The following section provides a visual overview of the key functionalities of our project SkinFit: Personalized Skincare Routine Recommender. Each screenshot highlights specific features of the program, such as viewing the routine, adding or modifying steps, and exiting the application. These visuals aim to demonstrate the user interaction and how the program performs different tasks based on user input.

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*Figure 1: Viewing the Skincare Routine*

This screenshot shows the skincare steps generated based on the user's skin type and time of day. The user can see a customized routine after entering their information.

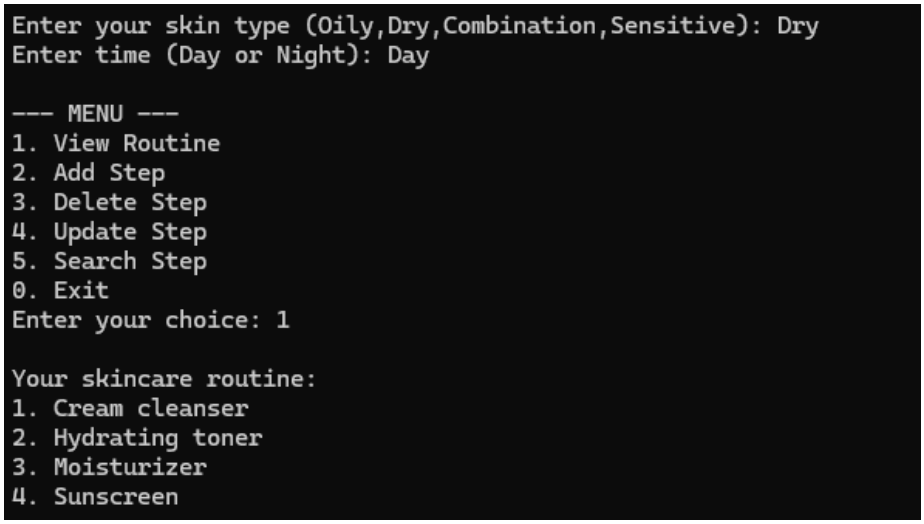


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*Figure 2: Adding a New Skincare Step*

Here, the user chooses to add a new step to their routine. The program allows input and saves it using file handling.

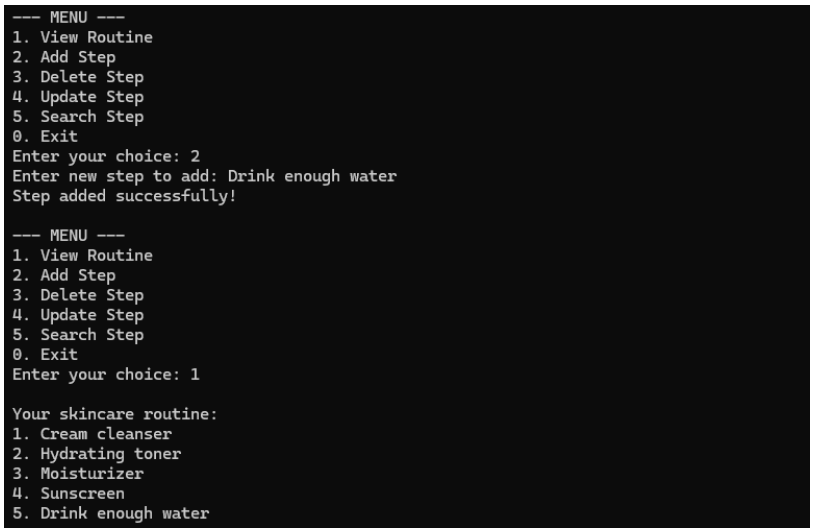


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*Figure 3: Deleting a Skincare Step*

This screenshot shows the delete functionality in action. The user can choose a specific step to remove from their skincare routine, and the program updates the file accordingly.

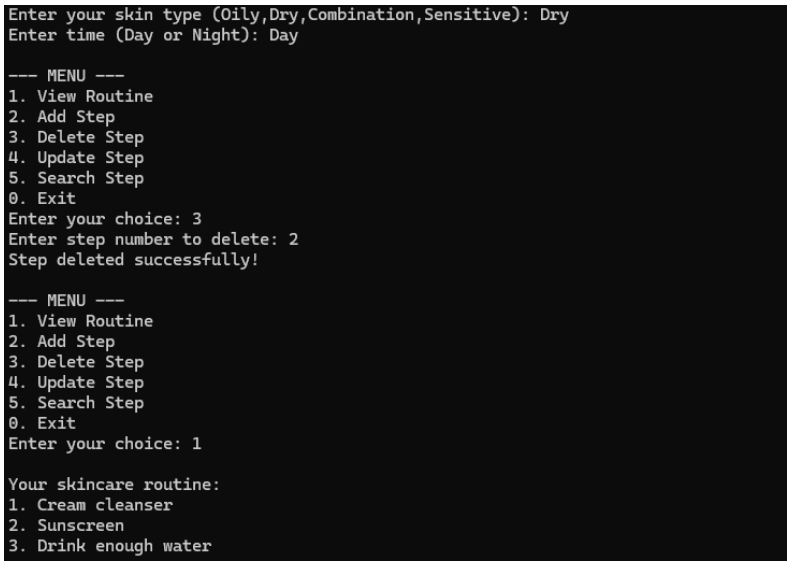



*Figure 4: Updating an Existing Skincare Step*

This screenshot displays the update feature. The user selects a specific step from the routine to modify, inputs the updated information, and the program saves the change.

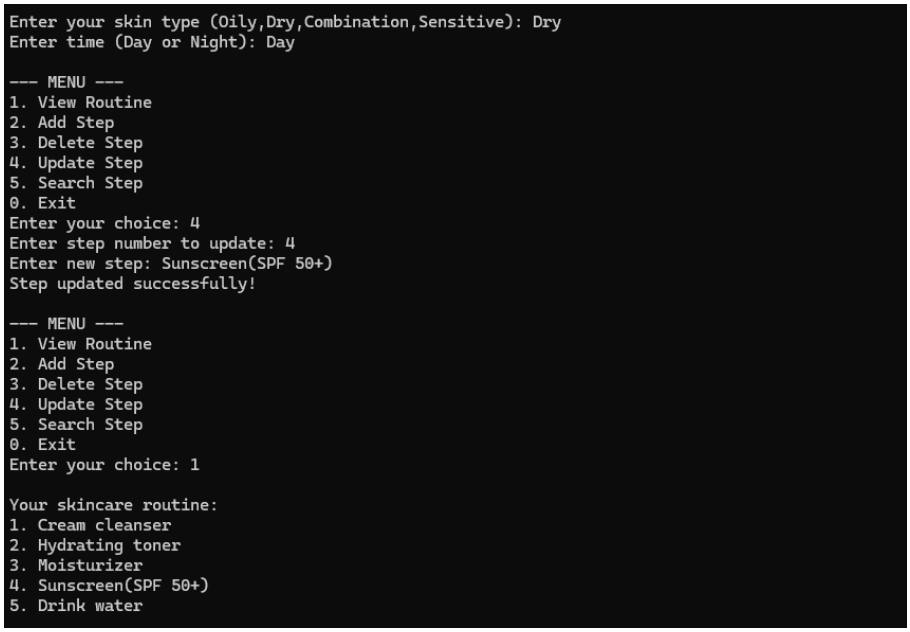
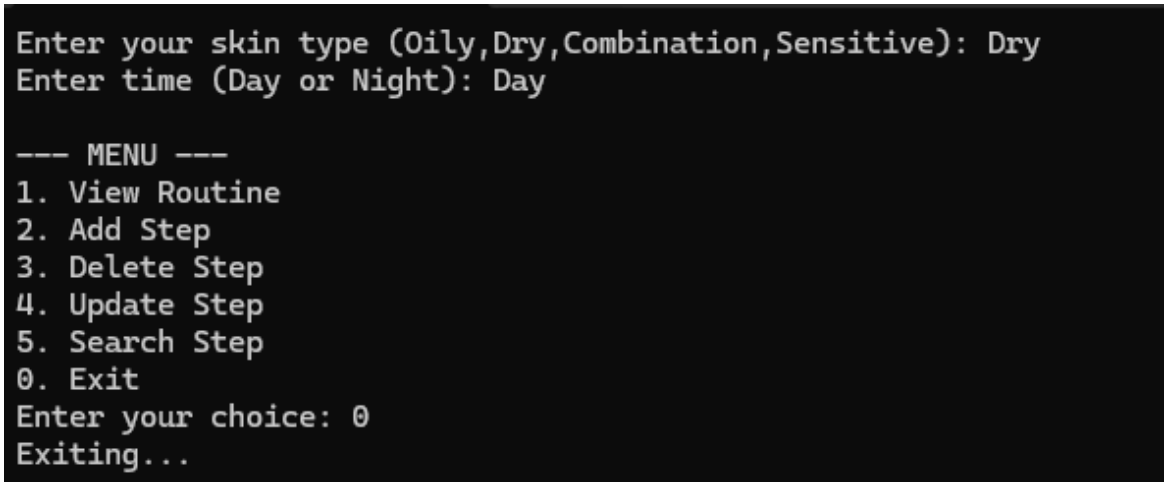


*Figure 5: Searching for a Specific Step*

In this screenshot, the search function is used to find a particular step in the routine. The program highlights the matching entry based on the user's input.


*Figure 6: Exiting the Application*

This screenshot shows the program's exit screen. After completing their tasks, the user selects the exit option to close the application safely.




## 10.Future Work

- Add a simple ,user friendly graphical interface.
- Suggest real skincare products with brand names.
- Handle typos and invalid inputs better.
- Support multiple user profile.
- Let users rate or review each routine step.

## 11.Team Member Contribution

Team Members

Project Area

Specific Contributions

1.Sagida Haque Arbi

User Interaction & Routine Logic

Handled the design and development of the user input section (skin type, time of day), and implemented the logic that generates the personalized skincare routine based on user data.

2.Tahiat Haque Bushra

File Handling & Data Persistence

Developed the file handling features, including saving and loading the routine to/from a text file for persistent data storage.

3.Tasnia Islam Shifa

Menu System & Functionality Implementation

Contributed to coding various menu-driven functionalities (add, delete, update, search steps), and assisted in testing and refining overall user experience.