Reflect

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Introduction: Aims and Objectives

We are building a website called Reflect.
Reflect is a wellness website which allows individual users to track their daily thoughts, feelings and habits. Our main aim for our website is to allow our users to reflect on their state of being, encourage them to indulge in self-care by generating a random relaxation activity for them to try, and inspire them with a motivational quote each time they login.

In addition to the above, Reflect also provides our users with a monthly summary of their mood, sleep and motivation levels whilst allowing them to document their memories through a scrapbook feature.

Reflect allows our users to reflect on their state of mind, how they are living and if it is in alignment with their life intentions.

Our software provides an outlet to avoid a breakdown or a burnout. It aims to bring the user self-awareness, guides them on their personal development journey and assists with managing their emotions.

Background

Reflect creates a simple way for users to log and keep track of their mood/general wellbeing. It also provides suggestive questions for the user, to inspire them to think and talk about their feelings, mood and things that they may be grateful for. The app also has a 'scrapbook' page, which can be used to vent or store any important moments. The user can do this by uploading photos and text. Additionally, we also have a page which the user can use to find inspiration for an activity that may lift their mood.

We are marketing our website as some sort of 'Wellness Tracker' and the key problem we want it to solve for the user is to help them assess any patterns throughout the week, month & even year which may affect their mood, motivation and wellbeing. We want it to be empowering to the user and help lift their spirits when facing days that are more difficult and lacking in energy. A key problem we want it to solve is empowering users to reflect and think about things that may be affecting them negatively, but also a way to store and highlight positive things that the user can look back on and remember. We know it can be overwhelming for some people to reflect on their emotions and we hope that this app creates a simple and effective way for users to do this.

Strengths

Linda - SQL, writing, community based projects, project management

Noshin - great unique ideas, team working,

Aysha - presenting, speaking, python, fitness, writing, sales, Becki, Ryan, positive attitude

Weaknesses

Linda - HTML, maintaining focus

Noshin - presenting, distractions

Aysha - SQL, time management, procrastinating,

Group - verifying gender, making it inclusive

Opportunities

Linda - community & engagements, seeing project to its end

Noshin - community projects & engagements

Aysha - presenting, speaking, people skills, writing, tech knowledge

Threats

Linda - work, family time,

Aysha - time management,

Noshin - family time.

Specifications and Design

Our main criteria for our website is outlined in
https://trello.com/invite/b/hCIGOWry/ATTIcfbddf0bc1943e0d217af20f84a7d49a 67123478/cfg-project

Login: The login in page is our landing where the user is asked their username and password. The login button prompts the SQL query to check if the user is in the database.

Registration: The user has an option to register if the SQL query checks the database and doesn't find their password or email. The user is prompted to put in their username, email, password, and region. An error will be returned if the email has already been registered.

Welcome page: A page with Reflect user with their name and Reflect logo once login details are entered correctly.

Dashboard: User selects one of four tiles. This is where they gain access to a daily motivational quote. The four tile options are My day, My month, Activity and Scrapbook.

My activities: suggest and notes activities user has performed and recorded.

My scrapbook: user has opportunity to upload photos.

Activity API: to generate relaxation activity recommendations to the user. We were unable to find an API for activities so we created mock data to achieve this.

Mindfulness API: notify user to their phone with a motivational quote
Tracker + Journal Function: Tracker for whole month can be accessed through the dashboard on My month widget.

A function that enables the user to access an overview of their activity, moods, and scrapbook inputs over the month. It would track mood, sleep quality tracking (slider - 1-5), motivation levels - (motivated/unmotivated/productive/unproductive) & 1 question with a random prompt.

Scrapbook Uploads function: Enables user to upload in more detail, daily thoughts and moods via images. It will get an image for a particular user and allow them to view prior image uploads.
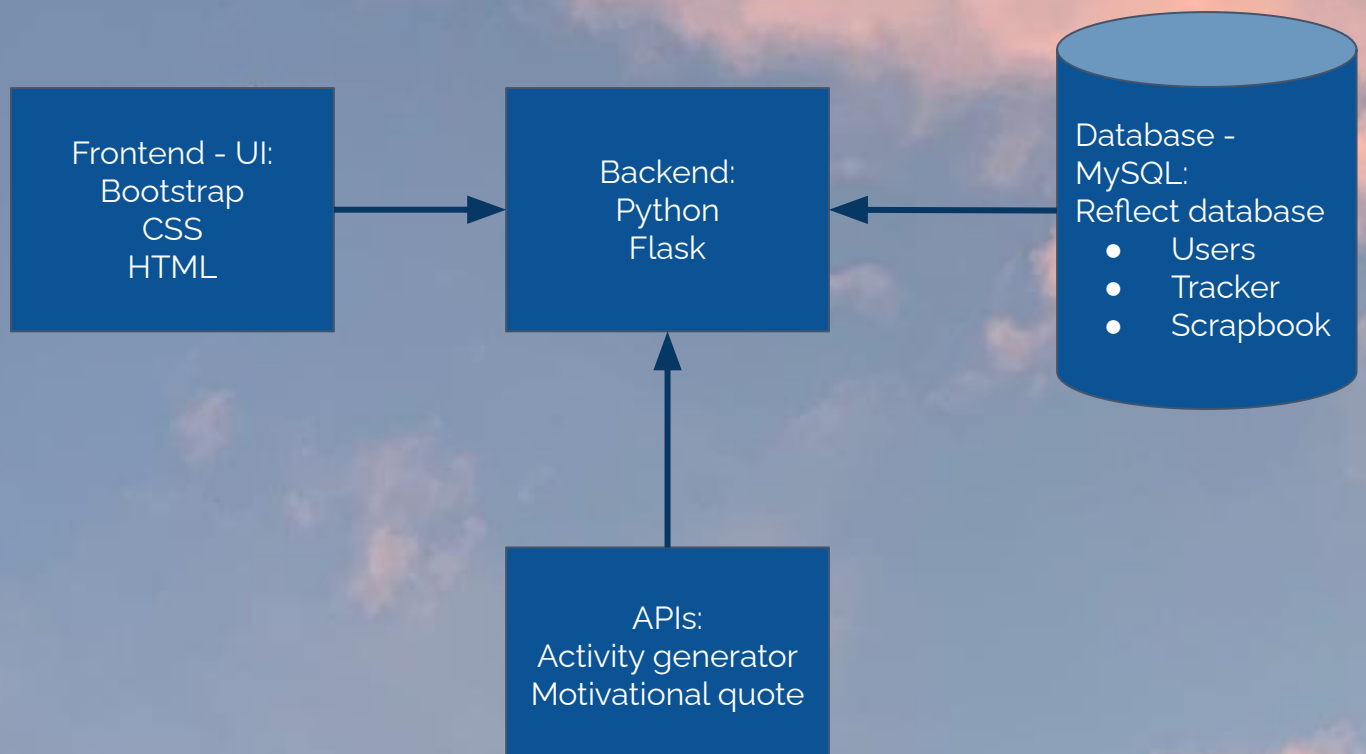
Database: A SQL database to store scrapbook uploads, login details, user information, daily tracker and journal inputs.

Web application: We decided that the project will be solely a website due to time constraints.

Design and Architecture

Tools, libraries and languages we used to build our site:

- Inspirational quote API
- Activity API
- Flask
- Flask_login
- Python
- MySQL-Connector
- MySQL
- HTML
- CSS
- Bcrypt
- Werkzeug.utils
- Flash
- Request
- Redirect
- Url_for
- Random
- Datetime
- Trello
- Canva
- GitHub

Frontend - UI: Bootstrap CSS HTML → **Backend:** Python Flask ← **Database - MySQL:** Reflect database
- Users
- Tracker
- Scrapbook

APIs: Activity generator Motivational quote →

Implementation and Execution

The team approach to the project work can be described as holistic. Our method was a mix of the waterfall method and Agile method. As we all live quite far from each other and have other commitments, we were not able to commit to regular progress meetings which the agile method would have required. However, as we were flexible on moving from tasks to task and didn't wait until one stage was finished we did not strictly abide by the waterfall method.

All of us work together to help work as one team, we pick up on certain tasks, but all work together to complete the task.Everyone understands how their contribution/research benefits the goal of the project (to create a software called Reflect) and we all help take part in the decisions that build the software.

We have also applied somewhat of a 'divide and conquer' approach to our project work. Assigning different tasks to each member of our group to start with and get the ball rolling. We initially assigned:

Linda - Planning and building the SQL database, Git management.
Noshin - Planning and writing the initial Python code for our app.
Aysha - Researching and trying different API's that could work on our app.
Group - Planning the web design, layout, colour scheme and writing the initial code.

After finishing our initial tasks we plan on coming together in group sessions to write the rest of our code and build our app. We have made a Whatsapp group to discuss our progress and also easily plan when we can get together to work on our project. Some of us have different work commitments and availability to others so we are dividing our time fairly in a way that works for and benefits everyone equally.

Another important part of our approach to the project is that we wanted to thoroughly plan our project before starting, making sure we are all on the same page and have an excellent understanding of exactly what we want to achieve from our app. One of the way we did this was by making a Trello board, which can be accessed below:
https://trello.com/invite/b/hCIGOWry/ATTIcfbddf0bc1943e0d217af20f84a7d49a67123478/cfg-project

We also made a shared document to write down some of the specifics features we want for the app and any design ideas:
https://docs.google.com/document/d/1H4JhfC89Qm-0p-VuPWY8gpSxRMR4_a-YEmU2sZ8mrQ0/edit?usp=sharing

We created a whatsapp group and slack group where we shared code, design, updates on assigned tasks, research and scheduled meetings.

Implementation Process

Challenges/Changes:

- Finding an activity API was challenging
- Settling on a project idea - conflicting ideas on purpose of app. We went through many changes from bird-watching, to an app for FGM/C survivors.
- Main coding challenge was trying to meet our "Scrapbook" expectations - initially we we wanted our users to be able to upload videos, voice notes and doodles along with photos. However, we had trouble getting our code to work - with our instructors guidance, we were able to integrate photo uploads and left it at that.
- Schedule - Linda was still in full time employment so finding time to meet was challenging. We also had quite a small group so we had to divide tasks between the three of us.
- Our initial plan was to have an app and website. We decided to just stick with a website due to time constraints.
- None of us were very experienced in HTML so we had to lean on our instructor for guidance in this area.

Achievements:

- Aysha built an activity API from scratch
- We were able to build a website where the user could upload photos.
- Despite responsibilities and commitments we were able to come together and work as a team.

Testing and Evaluation

To test our application we created a directory named "testing",

We ran a unit test on our mock_ activity API which focused on;

- if the the quotes suggestions were functioning and worked as expected.
- If the connection

User testing

We registered accounts on ou web application and referred back to our SQL database to check if the user information and login had been stored.

This confirmed if the id, username, email and password had been stored in the MySQL table.

The SQL queries command also confirmed if the credentials are correct and if they exist in the database.

Conclusion

Project outcome:

Our aim was to create a web application and app that tracks what we've labelled as wellness habits and highlights trends. We were not able to create an app, but our main aim of a web application that tracks thoughts (measures wellness) and habits through a journal and scrapbook that will benefit the user by giving them an outlet to track their emotions and also a space for them to vent, as well as encouragement through activity suggestion and motivational quotes, was achieved.

To further develop the web application or updates that can be considered in the future are motivational quotes and activity suggestions that align with a users religion, interests or life goals.