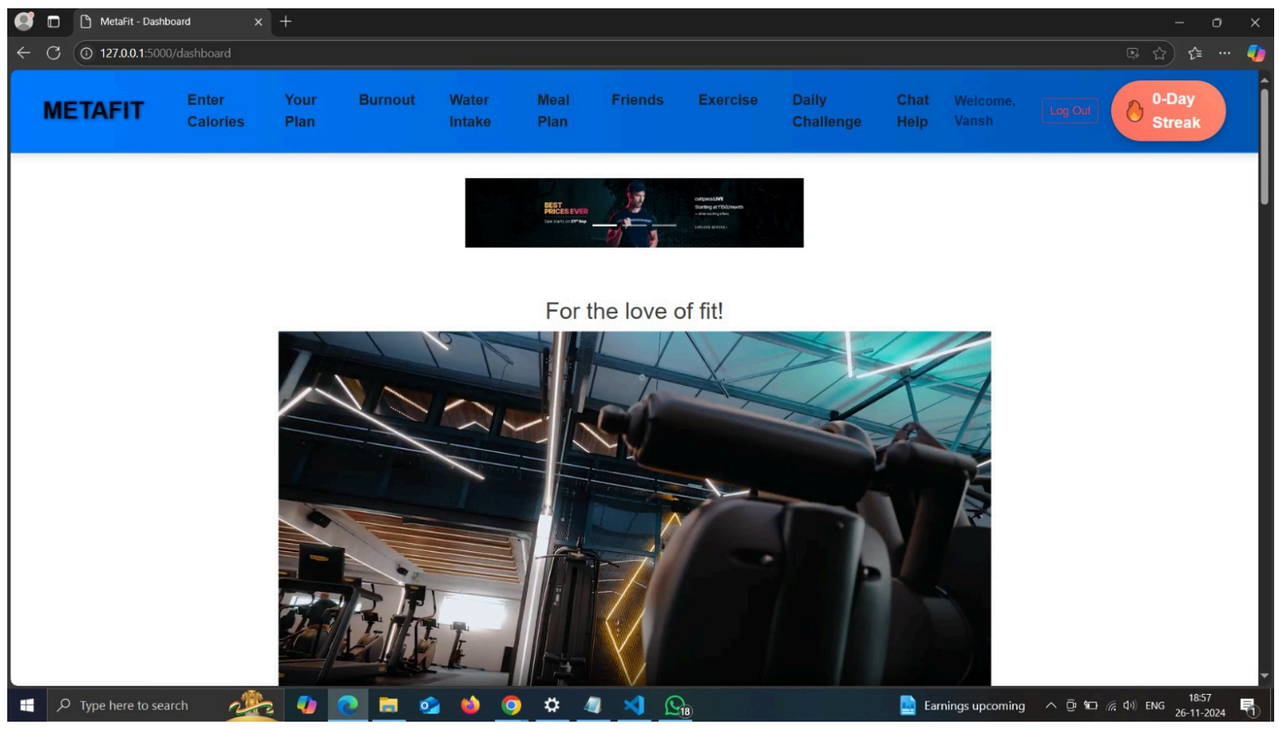
Group 46 - Ananya Doshi, Vansh Dodiya, Riya Bihani

META FIT 2.0



Existing features for Version i

1) Recommendation System for Exercises

An exercise recommendation system which provides different types of exercises to the user based on the users difficult preference of beginner, intermediate and expert. Using the exercise ninja API the exercies can be feteched and recommended to the users.

2) Water Intake Tracker

Tracking the amount of water that is being consumed by a user in a day by an interactive interface by choosing how many glasses of water are consumed till the time of the day. This will help keep the record and track the water drank during that instance to not forget it. An interactive design is made to make users engaged in the section and thus increasing the time spent of users on the website.

3) Seamless User Interface

The User Interface is now made responsive and is interface is now compatible for devices of every screen configuration. The interface is now more visually appealing and easily navigating, so that the user can reach to any web page on the website with ease. This makes user invest more time on the webpages.

4) Bugs Resolution

Various bugs present in the previous version of Metafit are now resolved and in working condition. The bugs in different features and user interface are fixed to provide a more dynamic platform for retaining the continuous usage of the users.

5) Ease of Access

Certain features are made easily accessible so that they are now quick for the user. The features like calorie and water intake are now made accessible faster so that the user can just update it and continue with several other task. This ease of access makes the user want to use the website more.

WHAT IS METAFIT 2.0?

It is a scalable platform aimed to smoothen the fitness journey. It lets users achieve their fitness goals by keeping track of water intake and daily challenges, receiving recommendations based on body parts and level of workout and creating daily plans related to food and more.

HTML CSS JavaScript mongoDB Flask

Implementation milestones for version i+1

1) Data Analytics and Insights Dashboard

Create a web page where user can view a track record of previous trends about calorie intake, weight gained/lost, goal completion analysis and more which could help them follow plans/diets accordingly.

2) Real-Time Fitness Sync: Auto-Sync Your Wearables!

A comprehensive picture of your fitness journey may be obtained by seamlessly connecting your fitness tracker (such as Fitbit), which will automatically log calories, workouts, and activity levels in real-time. Take advantage of immediate updates without having to deal with manual entry, allowing you to concentrate on reaching your objectives.

3) Integration of Nutritionist/Expert Consultations

Provide users with access to expert guidance by incorporating a platform that allows them to schedule sessions with fitness or nutrition specialists straight from the app. This would enable consumers to get individualized wellness, fitness, and nutrition advice.

4) Multi-language Support

To reach a larger audience, provide multilingual functionality to the app. METAFIT can increase user engagement and adoption worldwide by reaching people from diverse geographical areas by offering information in several languages.

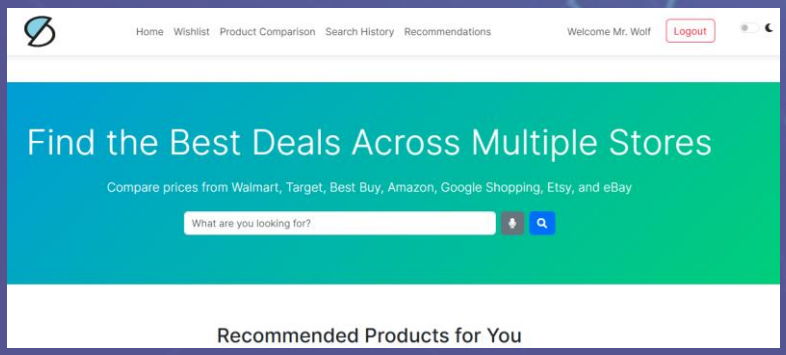
SCAN FOR VIDEO

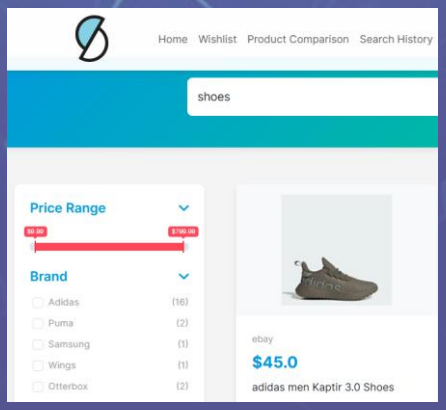
SCAN FOR REPO

SLASH

Love Shopping? Looking for Amazing Deals Online?
Slash is your ultimate tool to find unbeatable prices and enjoy features like Wishlist, Price Drop Alerts, and Voice Search!

What is Slash?
Slash is a secure, AI-powered platform that compares products, tracks prices, and offers personalized recommendations from top e-commerce sites like Walmart, BestBuy, and eBay.





Features Added

- **Hands-Free Product Search**: Slash 2.0 now supports voice search through speech-to-text technology.
- **Product Tracking - Wishlist**: Wishlist allows users to easily track and revisit items they are interested in buying later by saving their favorited items in a database.
- **Product Tracking – Price Drop Alerts**: Users are alerted when items they wishlist become more affordable, helping them to grab the best deals.
- **AI-Powered Recommendations**: Slash 2.0 leverages artificial intelligence (ChatGPT) to recommend products based on previous searches.
- **Product Comparison**: Slash 2.0 allows side-by-side comparisons of product specifications, prices, and availability, helping users make more informed purchase decisions.
- **Two-Factor Authentication (2FA):** Users will receive a One-Time Password via email, which must be entered for secure login
- **Search Insights: Visualization Bar:** Slash 2.0 introduces a visualization bar that provides insights into the search results.
- **Simplified Installation:** New setup process allows users to quickly install and configure the application with minimal steps
- **Expanded Test Coverage**: Increased test coverage to 98% and currently have ~185 test cases (incl. negative and positive cases)

Future Improvements

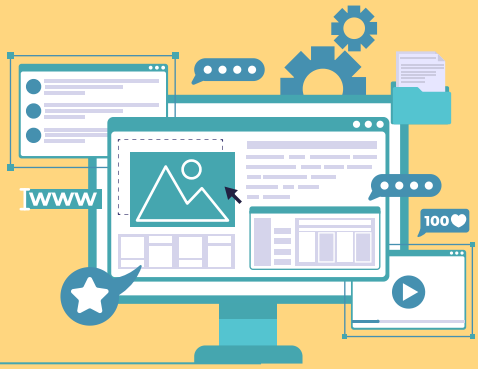
- **Real-Time Notification System -** Implement real-time notifications that alert users when a product on their wishlist or tracked products has its price drop or when a limited-time deal becomes available.
- **Implement Predictive Pricing Algorithms:** Implement machine learning to predict potential future price drops, alerting users when they should buy based on the likelihood of price changes.
- **Cloud-Native Infrastructure:** Move to serverless architecture (e.g., AWS Lambda, Google Cloud Functions) to handle product scraping dynamically.
- **AI-Powered Deal Prediction:** Predict when certain products might go on sale and send smart alerts to users
- **Smart Inventory and Product Availability Monitoring:** Integrate with e-commerce platforms to track product availability in real-time, alerting users when items are back in stock
- **Multi-Platform Integration:** Develop a browser extension that allows users to track product prices directly while shopping on e-commerce platforms

Group 77
Team Members: Girish G N (ggopala4), Joel Jogy George (jjgeorg2), Pravallika Vasireddy (pvasire2)

GROUP 101
Aryan Inguva
Anurag Gorkar
Harsh Vora

SIMPLII

**SIMPLIFY TASKS,
AMPLIFY PRODUCTIVITY.**

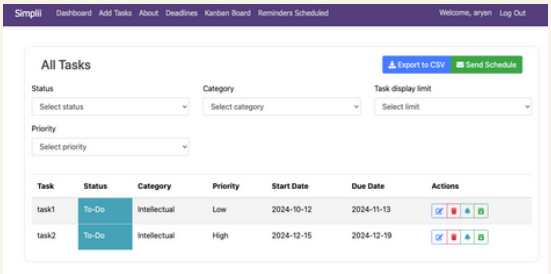


1

MANAGE YOUR TASKS SIMPLII

- Effortless for Everyone: Simplii's user-friendly interface is designed to be intuitive and welcoming, making it perfect for users of all ages and even those new to technology. Stay organized without the learning curve!
- Tailored Task Organization: Categorize tasks based on your needs, update them as you progress, and effortlessly track both ongoing and completed tasks. Simplii ensures you stay on top of your priorities.
- Stay Ahead of Deadlines: With deadline-priority views and customizable email reminders, Simplii keeps you on track and stress-free as you approach important deadlines.
- Visualize Your Workflow: The built-in Kanban board offers a dynamic, visual representation of your tasks, allowing you to seamlessly manage and monitor your progress at a glance.
- Plan and Succeed: Set reminders for key tasks, plan proactively, and ensure nothing slips through the cracks. Simplii empowers you to achieve your goals efficiently.
- Simplii isn't just another task manager—it's your reliable partner in productivity. Make life simpler, one task at a time!

2



Kotlin HTML CSS mongoDB JS Flask

WITH 80+ ROBUST TEST CASES

3

SIMPLII 6.0 ISN'T JUST AN UPGRADE

1. AI-Enhanced Productivity: The custom AI email feature transforms task management by delivering personalized timetables and smart suggestions directly to your inbox, making organization smarter and faster than ever before.
2. Seamless Data Handling: Instantly export tasks to CSV files for easy sharing, reporting, or analysis—empowering users with quick access to structured task data that was previously time-consuming to compile.
3. Enhanced Usability & Accessibility: The addition of dark mode with persistence ensures a more comfortable, customizable user experience, while Firebase authentication simplifies and secures the sign-on process, replacing outdated OTP methods.
4. Smarter Insights, Prioritized Tasks: The new priority tracking parameter combined with a refined recommendation engine ensures users can easily filter tasks and focus on what matters most, a leap from the basic task management of earlier versions.
5. Robust Performance & Credibility: With modularized code, a cleaner backend, over 30 new test cases, and badges for code coverage and development status, Version 6 delivers unmatched reliability and transparency, far surpassing its predecessors in quality and stability.

FUTURE SCOPE

1. Dynamic Task Dependencies: Introduce task dependency management where users can define relationships (e.g., "Task B starts after Task A"). Leverage graph structures for efficient scheduling and visualization.
2. Natural Language Input for Tasks: Implement NLP to allow users to create tasks with phrases like "Finish report by next Tuesday," auto-assigning due dates, priorities, and categories.
3. Real-Time Collaboration: Enable multiple users to collaborate on shared tasks with real-time updates and activity logs using WebSockets or Firebase Realtime Database.
4. Enhanced Analytics Dashboard: Integrate D3.js or Plotly to deliver interactive visualizations, such as task completion rates and workload distribution, tailored by user-defined metrics.
5. Offline Mode: Build offline task creation and updates using IndexedDB for local storage, syncing seamlessly with the server when back online.

4

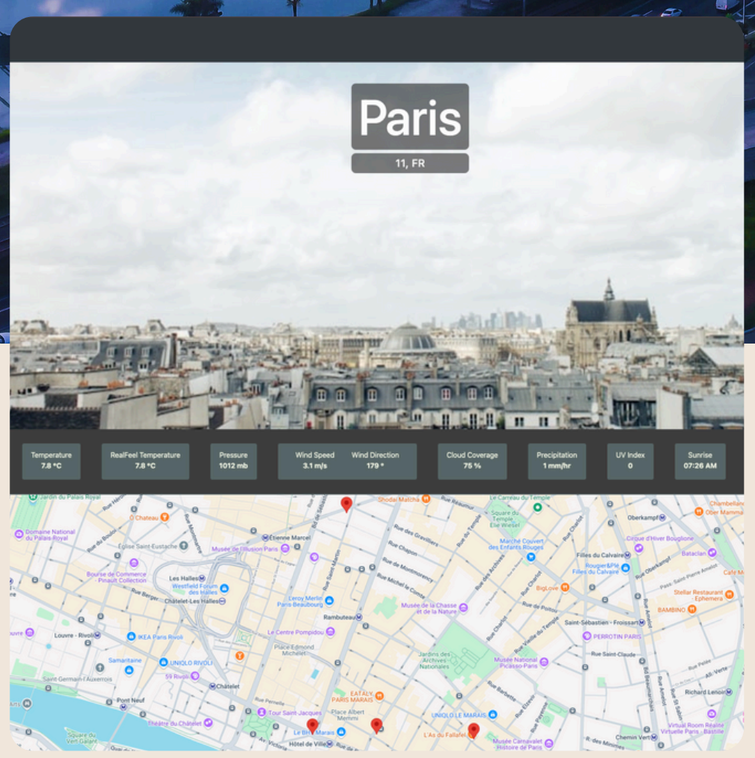
STREAMLINED TASK MANAGEMENT WORKFLOW

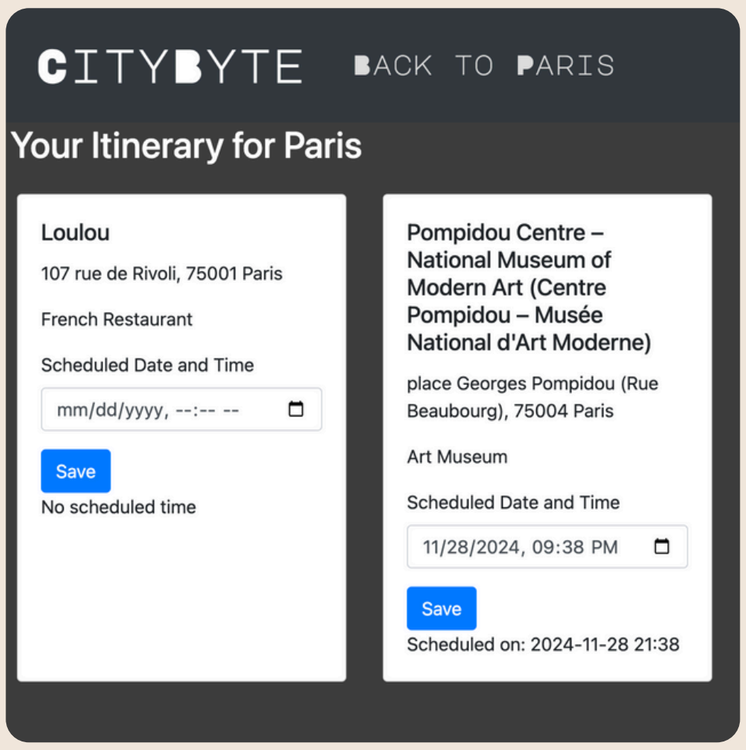
- Secure and Personalized Access: Users begin by registering and creating accounts, ensuring their data is securely stored and uniquely tailored to their needs.
- Intuitive Task Management: With a user-friendly dashboard, users can effortlessly add, edit, and track tasks while staying organized with features like priority filtering and progress visualization.
- Never Miss a Deadline: Simplii keeps users on track with timely reminder notifications and an ordered deadline page, ensuring no task is overlooked.
- Kanban Visualization for Progress: Tasks are displayed in a Kanban board format, offering a clear, visual representation of progress for a more productive workflow.
- Cross-Platform Integration: Simplii seamlessly syncs with Google Calendar, allowing users to manage tasks efficiently across platforms and stay organized wherever they are.

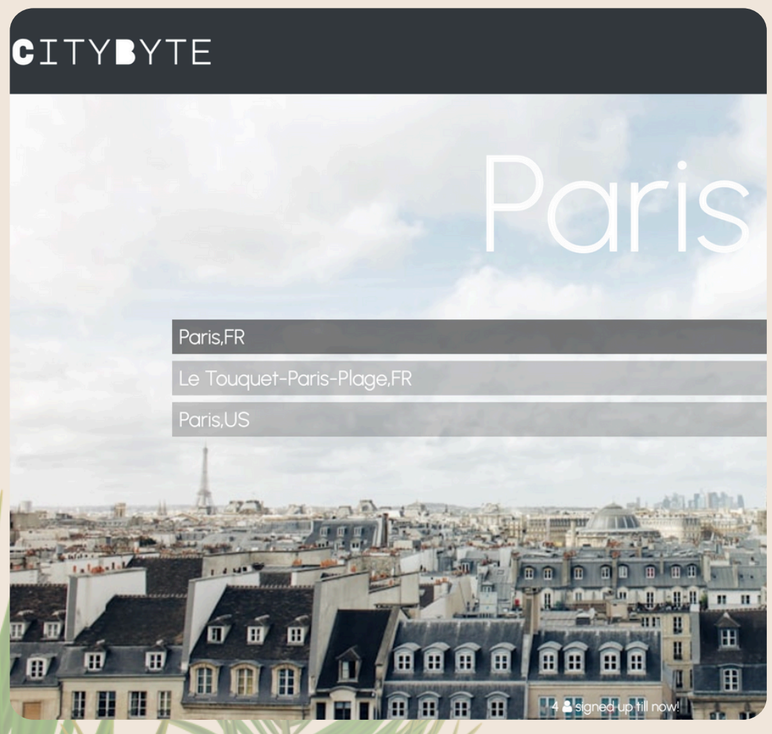
NC STATE UNIVERSITY

CITY BYTE

Your City Guide at Glance







About Us:

Ready to discover your next adventure?
CityByte is your ultimate companion for exploring the world whether you're planning your next getaway or simply indulging in some virtual wanderlust!

Key Features:

- Multi-pin map
- Schedule and organize itinerary items
- Summarize itinerary
- Locate Me feature

77 Test Cases

Future enhancements:

- Recommendations based on preference
- Search feature for types of activities
- Better search feature

Report

Demo

MOVIE RECOMMENDER

Discover Your Next Movie Night Gem!

ABOUT

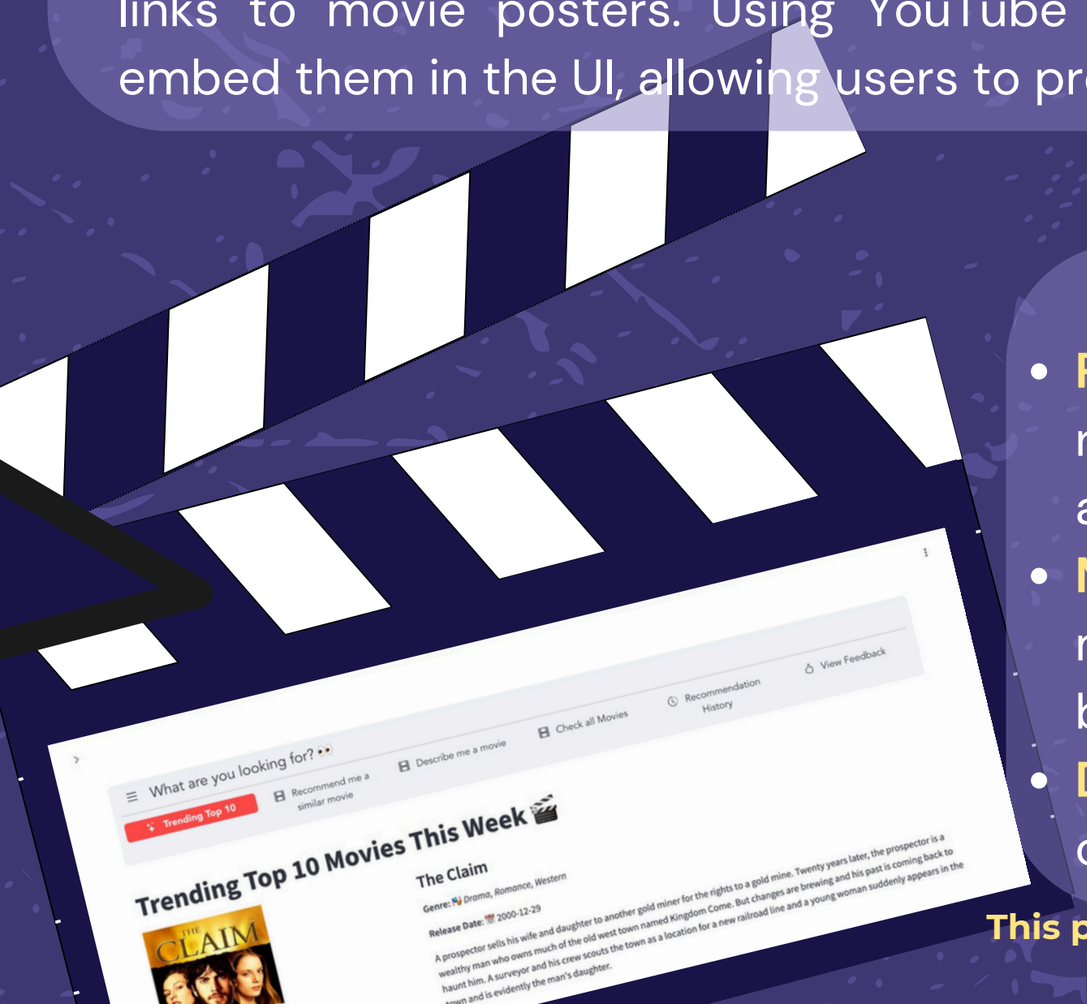
Our recommendation engine uses NLP to help you discover new movies aligned with your tastes. Based on genres, cast, reviews, and user feedback, it tailors a handpicked list of 10 must-watch movies, saving you time and effort. Say goodbye to indecision, and let Movie Recommender do the work for you. Get started and make every movie night a memorable one!

WHAT'S NEW

- **User Authentication Seamless Signup and Login:** Added toggled visibility functionality for passwords.
- **Intelligent Movie Recommendations:** Used Natural Language Processing (NLP) with the Bag-of-Words model to suggest movies based on genres, tags, cast, and production companies. This is done by analyzing word frequency and cosine similarities, ensures highly relevant suggestions tailored to your preferences.
- **Feedback System:** After watching a suggested film, you can give it a thumbs up if it matches your preferences, or a thumbs down if it doesn't. The recoreded feedbacks can be viewed on the feedback tab.
- **Recommendation History:** This feature allows you to effortlessly track both your search history and our personalized recommendation history. You can easily revisit previous ones to ensure you never lose track of your movie journey.
- **Weekly Top 10 Trending Movies:** Every week, we showcase the hottest films that are making waves, complete with essential details like the movie poster for a visual preview
- **UI/UX Enhancements with Streamlit:** Elevated the UI/UX by transitioning from Flask to Streamlit for a more seamless and user-friendly interface
- **Trailer Links with Movie Posters:** Enhanced movie discovery by adding trailer links to movie posters. Using YouTube API, we fetched trailer videos and embed them in the UI, allowing users to preview films before watching.

Group 25
Mrudani Hada
Parth Parikh
Jamnesh Patel

FUTURE SCOPE



- **Personalised Email Notifications:** Sends users weekly movie recommendations via email, enhancing engagement with automated updates.
- **ML Model for Weekly Top 10 Recommendations:** Integrate a machine learning model to generate the Weekly Top 10 movies based on user feedback.
- **Data Visualization:** Create and display visualization charts customised for the users based on the feedback data received.

This project successfully passes an impressive 157 test cases showcasing its reliability and robustness!

Poster

NC STATE UNIVERSITY

PackReview 4.0

Empowering students with insights, discussions, and community-driven reviews for a better on-campus job journey.

HTML JS CSS Flask mongoDB

FEATURES

🌐 **Machine Learning Recommendations:** Implemented AI-driven job recommendations based on users' interests, increasing the relevance and personalization of job suggestions

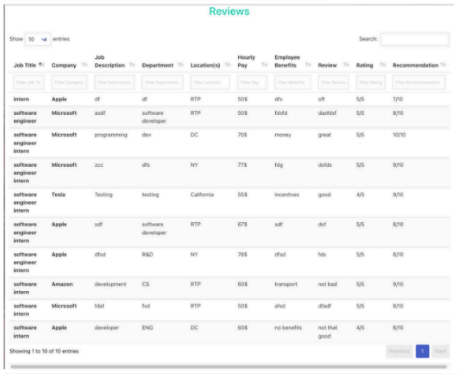
📊 **Enhanced Review Analytics:** Introduced graphical insights for trends in job satisfaction, location-based salary data, and career growth opportunities.

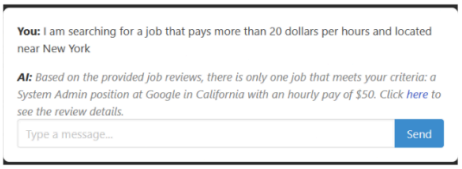
🤖 **AI Chatbot:** Introduced graphical insights for trends in job satisfaction, location-based salary data, and career growth opportunities

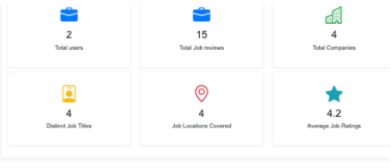
📄 **Expanded Discussion Features:** Allowed users to follow topics, upvote/downvote discussions, and receive notifications on relevant posts, making the forum more interactive.

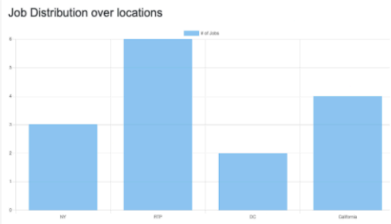
🎮 **Gamified Review System:** Incentivized users to contribute by adding a badge and rewards system for active participation and helpful reviews.

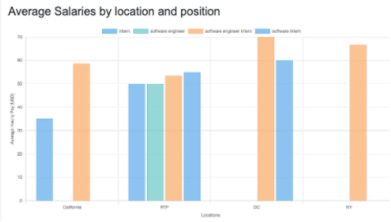
RUNNING SYSTEM











FUTURE ENHANCEMENT

📱 **Mobile App Development:** Create a mobile version of the application to expand accessibility and allow users to engage on the go.

🗣️ **Integrated Messaging System:** Add a messaging feature for users to communicate directly with employers or other users to seek advice.

DEMO

GITHUB

TEAM 78:
NAZMUL, KISHAN, RAVI

WalletWise

Even wiser than before

About

WalletWise is a powerful AI-driven financial planner that can help individuals track, budget, save, remind, organize, and advise financially. With WalletWise, you do not have to worry about calculating your savings, manually converting different currencies, and writing your goals in multiple places; you can use all of these utilities on your Telegram bot! Boost and achieve your financial freedom and independence.

Future Enhancements

- Expanding the budget allocation and tracking to multiple currencies.
- Detailed transaction search and filtering by date, category, or amount.
- A cryptocurrency portfolio management for crypto tracking, including growth analysis.
- Spending challenges with a group or other users for limiting spending in certain categories, promoting healthy spending habits.
- Automated expense categorization using machine learning algorithms based on description or amount patterns.

Testing

As for the tests, similar to the previous projects, our rigorous testing framework has been successfully passing the prior version's test cases, but we also added tons of new tests for all the latest functionalities, making sure everything works correctly with a structured testing platform, enabling future groups to move forward and further improve WalletWise readily. Given the previous test cases and our recent ones, 103 total test cases are available, which cover different scenarios, such as valid input, showing the data, different input categories, how the bot displays the messages, etc.

Click me for Code

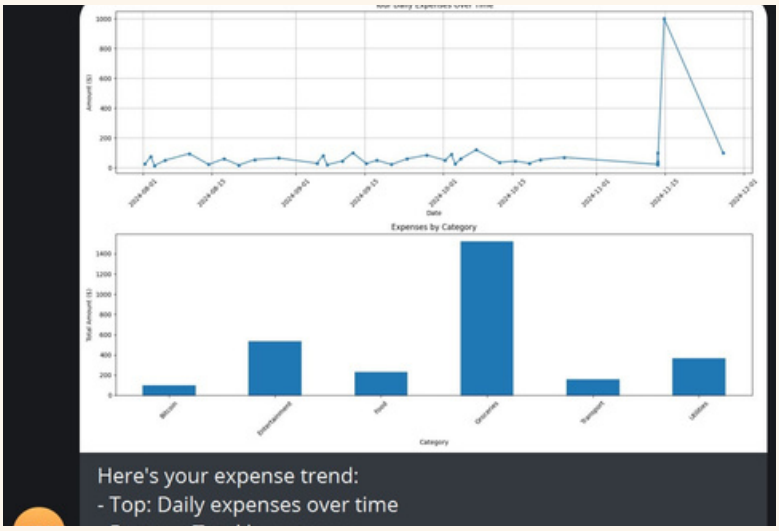
Click me for Demo

Tech Stack

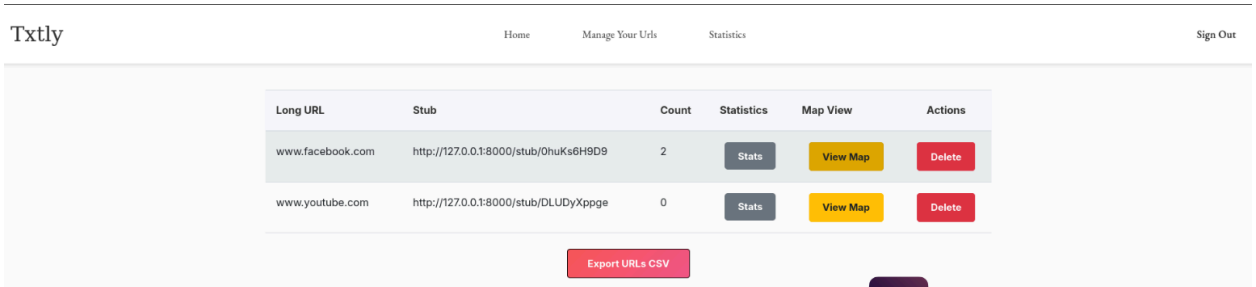
python™

Achieved Milestones

- WalletWise has successfully implemented Advanced Predictive analysis for Spending Patterns, which has category-specific expenditure forecasting and anomaly detection.
- Budget allocation and tracking are available now in one currency, yet it is expandable to multiple currencies with the implementation structure.
- Users are able to save and show their recurring expenses, such as their rent, utility, etc., with specific intervals that will be reminded to the user after that time.
- WallerWise has become a goal-oriented platform, letting users add and track their financial goals.
- Income tracking and net saving calculation according to monthly expenses are other features of this version.
- Users are able to export their expenses as either PDF files or CSV and get their weekly or monthly reports on their financial status and behavior.



Group 54
Sravya Yepuri, Melika
Ahmadi Ranjar, Chirag Hegde



TXTLY

A URL SHORTENER

Bootstrap

django

ABOUT

TXTLY is an awesome tool for helping users create shortened URLs for a variety of purposes. With an amazingly simplistic UI, and wide variety of URL-related features, TXTLY offers an experience much different to traditional URL-shortening applications. TXTLY is for anyone dealing with a large amount of URLs in their day-to-day workload. TXTLY now offers new features like location insights, as well as enhanced security checks on URLs.

Git Repository

Site on Render

Whats New?

TXTLY now offers 3 awesome new features for its URL-shortening service. First, users now have the option to run their original URL through a security scan to check for possible phishing attacks or other malicious websites. Additionally, TXTLY now collects metrics on browser, location, and click counts for the user to see on the stats page. Finally, the location statistics collected are leveraged to give the user a visual insight with a world map on where the URL has been accessed from. The website is also now deployed on Render, see the QR code on the right above.

Tests!

We've expanded our testing suite to cover the new features introduced in TXTLY's URL-shortening service. For the security scan feature, we've implemented comprehensive tests to ensure it accurately identifies phishing links and malicious websites. Our metrics collection, which tracks browser details, location data, and click counts, is thoroughly validated to confirm accurate reporting and seamless integration with the stats page. Finally, we've added tests to verify the functionality of the new world map visualization, ensuring it correctly represents the geographic locations where URLs have been accessed. All tests are designed to maintain reliability and performance on our Render deployment.

Whats next?

- Currently the malware protection is utilizing VirusTotal, an API that uses a multitude of different services to develop results on possible malware. An improvement here could be the use of AI powered threat detection.
- Real-time notifications: Adding SMS or email notification for alerts on statistical values or security scan results is a much requested feature.
- QR Code Generation: Users should be able to generate QR codes from their shortened URLs.
- Password protected URLS: Some users may want the ability to password protect groups of sensitive URLs.

CSC510 Fall 2024 Group 15:
Aditya Karthikeyan | Braden Helmer | Quoc Hung Le

WolfJobs

The ultimate Hub for On-Campus Student Emplyment

Demo Repo

WolfJobs is your go-to platform for flexible and rewarding job opportunities, tailored to students and beyond. Whether you're looking to earn extra cash, explore career options, or find a long-term fit, WolfJobs offers the freedom to choose and grow on your terms.

Join us and take the next step in your journey!

Version i

Email Notification Service: Notify managers and applicants via email about job postings and applications.
Password strength : Enable the password strength requirements.
Video Upload: Allow applicants to upload video demonstrations for additional explanation.
Password Visibility Toggle: Enable the show/hide mode of password
Appointment: Enable scheduling appointment in the calendar

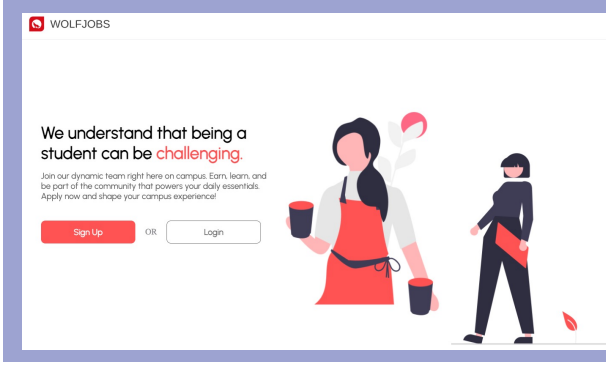
Test Case

Password Setting Test: Input various example passwords to test whether they meet the strength requirement .
Email Service Test: Simulate sending emails with various inputs to verify successful delivery and appropriate error handling for missing or invalid details.
Uploading Test: Verify the resume or video upload and viewing components render correctly.

Version i+1

Enhanced Candidate Feedback System: Introduce automated email updates to inform applicants about their application status, including selection or rejection notifications.
Intelligent Job Matching: Develop a machine-learning algorithm to analyze applicant profiles, skills, and resumes for better job-candidate matching, with skill compatibility scores displayed to both parties.
Real-Time Interview Scheduling: Integrate a scheduling tool with Google Calendar, allowing applicants and hiring managers to coordinate interviews based on mutual availability.

Example



JS node.js mongoDB MOCHA

Authors: Hui Sun, Tingxiang Ji , Zhichao Hou

PackTravel

Carpooling made easy!

Repository

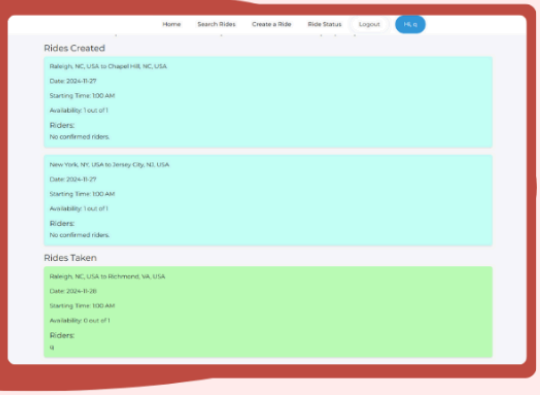
Having trouble finding a ride?

Let **PackTravel** help you with connecting you with others with the same destination in mind. *Traveling is best when in good company, after all*!

Tech Stack

What's New?

- **Developer Security Refactor**
  - Previous iterations of this project had some security issues regarding the accessibility of developer information and API keys.
  - This has been transitioned to a more secure implementation that doesn't involve exposing your developer keys and user information.
- **Predictive Pricing Model Improvements**
  - Introduced 5 new models, each of them being an improvement over the previous iteration, providing more accurate information on predicted prices from ride sharing companies.
- **View Ride History**
  - Allow users to keep track of each of the rides they have taken in the past to have a reference for any future rides that they can take.



Testing

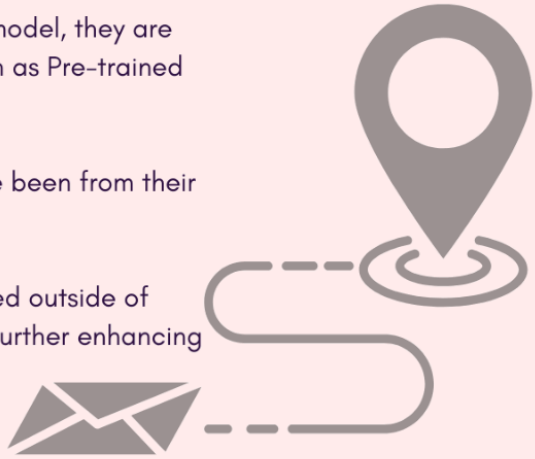
- Introduced an organized system test plan consisting of 32 new system test cases and 4 new unit tests
- System test plan is an organized spreadsheet that is able to be easily modified
- Updated unit tests to reference new database field
- ML model testing and analysis is available on the GitHub Wiki

Revamped Documentation

- More in-depth documentation and discussion on newly implemented features
- Installation guide is now more fleshed out for ease of use and to reflect new security refactor

The Future of PackTravel?

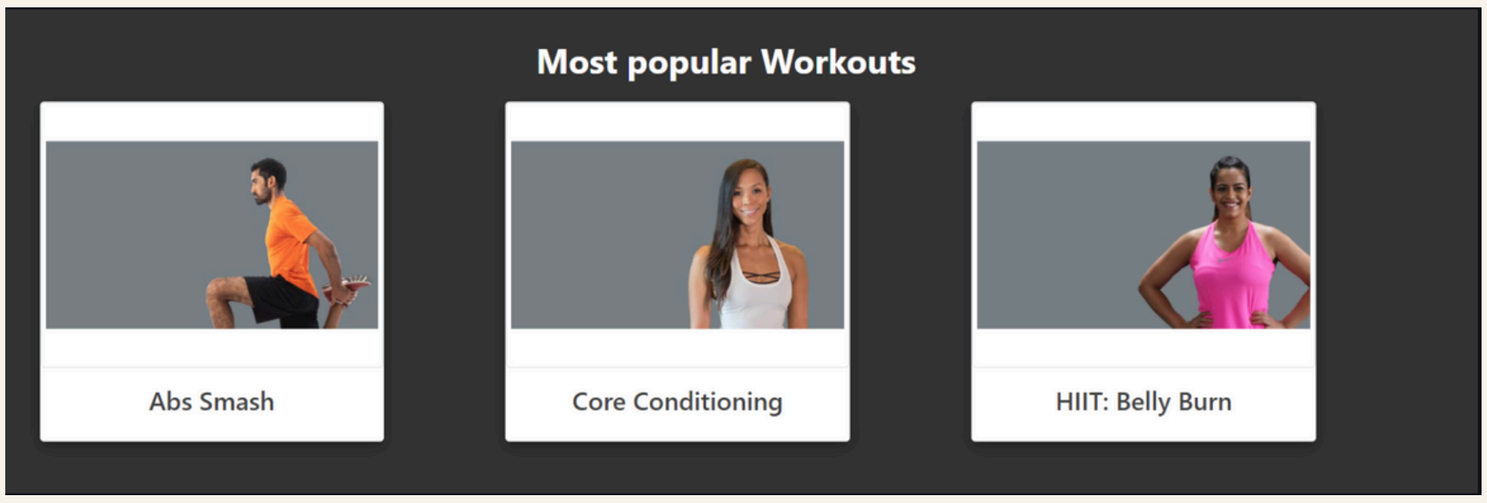
- **Transitioning to a Deep Learning Model**
  - While the models implemented improve on the previous iteration's model, they are computationally expensive. Introducing Deep Learning models, such as Pre-trained models may help achieve better results in the future.
- **Ride Recommendation System**
  - Recommend rides to the user based on the locations that they have been from their Ride History and people that they have previously ridden with.
- **Ride Completion**
  - Currently, there is no way to confirm that a Ride has been completed outside of completely deleting it. Implementing a way to do so would help in further enhancing Ride History and the recommendation system.



GROUP 45: Brian Huynh, Manav Kamdar, Shanmukha Srinivas Sai Chatadi

Energize

Energize is more than just a fitness app; it's your ultimate companion on the journey to a healthier, stronger, and more vibrant you. With an extensive collection of personalized workouts, expert guidance, and cutting-edge tracking features, Energize is here to revolutionize the way you move, train, and achieve your fitness goals. Whether you're a beginner or a seasoned athlete, Energize empowers you to embrace an active lifestyle and unlock your full potential.



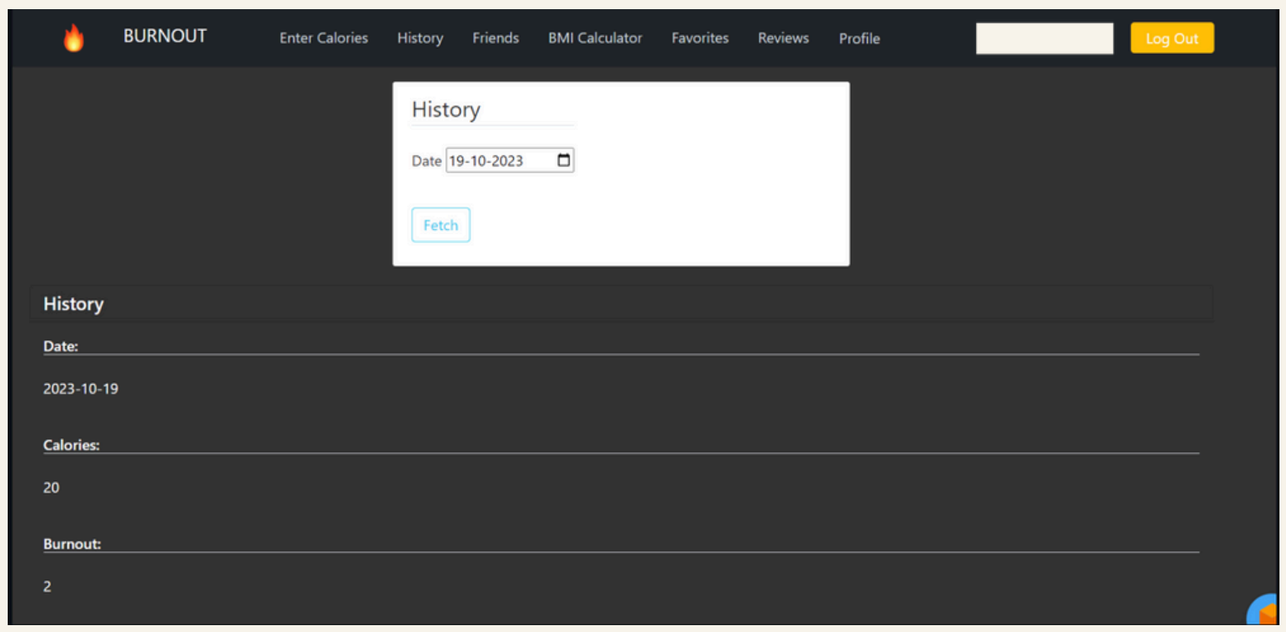
New and Improved!

- Bug Fixes:
  - Say goodbye to all those pesky bugs, we're on a mission to catch them all before you do!
- Email Verification:
  - We now support 2FA using your email address for enhanced security and privacy!
- Revitalized Frontend:
  - We've decluttered the interface, removing unnecessary elements to create a sleek and intuitive design, making it easier than ever to navigate and find what you're looking for.
- Timer for Every Workout:
  - Every workout session now comes with a built-in timer, helping you stay focused and keep track of your progress effortlessly!
- Extensive Test Cases:
  - Rest assured! Our system contains extensive test cases to ensure that if anything goes wrong, we'll know about it!
- Login with Social Media:
  - Seamlessly log in using your social media accounts and connect with friends to share your fitness journey or cheer each other on!

Try it for yourself!

Future Milestones

- Milestone 1:
  - Introduce AI-driven workout suggestions that adapt to your progress, preferences, and fitness goals, ensuring every session is tailored to your needs..
- Milestone 2:
  - Incorporate badges, rewards, and fitness challenges to keep users motivated and make working out more engaging.
- Milestone 3:
  - Enable users to create or join virtual workout groups, fostering community engagement and encouraging accountability through shared goals.
- Milestone 4:
  - Support synchronization with popular fitness trackers and smartwatches to monitor real-time metrics like heart rate, steps, and calories burned.
- Milestone 5:
  - Add interactive virtual trainers that guide users through exercises with real-time feedback and tips for proper form.



- Frontend: HTML, CSS
- Backend: Flask (Python)
- DataBase: MongoDB
- Test cases: 75+

Group 100:
Anchita Ramani
Meet Patel
Abhinav Jami

PopcornPicks

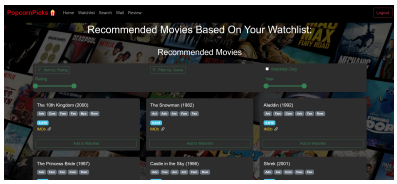
Group 36
Nico Field, Biruk Tadesse, Riley Joncas

Why PopcornPicks?

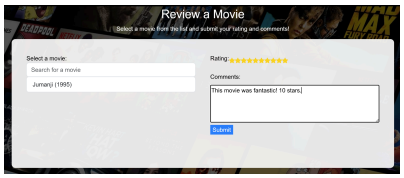
- Popcorn Picks is your personalized movie recommendation system! Seen a movie you loved, but not sure where to go next? Simply add that movie to the search list, and let the system create a list of recommended movies!

Improvements!

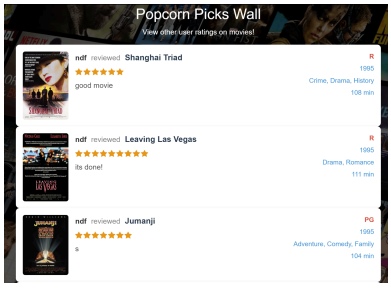
Version 6.0 of this project has come with many improvements on the previous system. Here are some of the big ones:



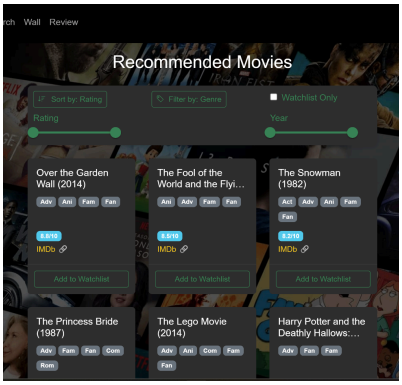
- **New Homepage Feature:**
  The homepage will automatically generate new recommendations each time you visit it. No need to enter movies, it takes them directly from your watch list!



- **New Review feature:**
  Users can now submit reviews of movies with a rating out of 10 stars and a comment about what they thought of the movie!



- **New Wall feature:**
  The wall serves as a community bulletin board of all movie reviews from all users in the system. Browse the reviews to find movies that your friends liked!



- **Updated Recommendations page:**
  With the updated recommendations page, you can easily sort the provided recommendations to find exactly the movie you are looking for! Sort alphabetically, by date, or by genre!.

Tech Stack

- PopcornPicks uses some standard webapp frameworks such as React to simplify the page creation process, python to control the backend scripting, flask for database, and several others.
- Testing is done mostly using the pytest framework.
- Speaking of testing, there are over 36 test cases testing the various parts of the app, from the restAPI, to fetching individual movie details! You can rest assured that knowing if you make breaking changes!

Demo Video

Click the link or scan the QR code below to view a live demo of PopcornPicks features, new and old!

https://youtu.be/qaIXREQdHi4

Future Scope

- **Speed up recommendations**
  Currently, the recommendation algorithm is extremely slow, especially the more movies you add to it. Look into alternative algorithms for recommendations.
- **Sorting/searching reviews on the wall**
  Add functionality to be able to sort the reviews of movies on the wall. For example, be able to sort the reviews by the rating.
- **Incorporate user review and rating into the recommendations**
  Using reviews submitted by users of the system in the recommendations can enhance the results to tailor to movies enjoyed by others.
- **Increase the size of the movie database**
  The database has been consistent in size during this project, however to ensure the most accurate possible recommendations, increasing the number of movies would result in more rich recommendations.
- **Add TV shows to the database**
  Expanding the scope of the project to include tv shows could improve the user experience.

GitHub Repo

https://github.com/NCSU-CSC-510-F2024/PopcornPicks

COOK BOOK

Your AI Chef with a Voice

TEAM 23 : JING HUANG || SOUNDHARYA KHANAPUR || MUGDHA JOSHI

ABOUT

CookBook is your ultimate kitchen companion with a voice! Effortlessly discover delicious recipes tailored to the ingredients you already have. Customize recipes to suit your needs and receive personalized suggestions with clear, easy-to-follow instructions. Plus, enjoy the hands-free convenience of having recipes read aloud to you!

WHY CHOOSE COOK BOOK?

- Discover AI powered recipes tailored to your pantry and preferences.
- Enjoy hands-free cooking with multiple voice options guiding every step.
- Plan your week effortlessly with printable meal schedules.
- Manage shopping lists seamlessly, from creation to PDF export.
- Personalize your app with advanced filters and unique themes.
- Share recipes instantly on your favorite apps.

TRY US: COOK BOOK

DEMO VIDEO

NEW AND IMPROVED FEATURES

TEST COVERAGE: 80%

Multiple Voice Guided Recipes
A fresh addition! Choose from multiple voice options to guide you through cooking, enhancing convenience.

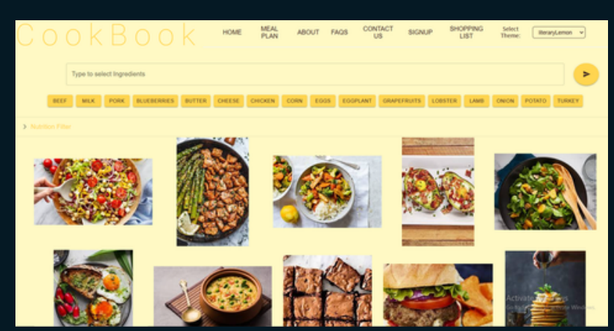
PDF Shopping List Export
Generate and export your shopping list as a PDF for offline access and convenience.

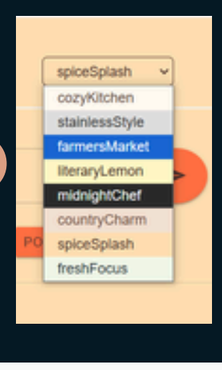
Personalized Themes
Make CookBook your own with a variety of beautifully designed themes.. Choose from warm, rustic, bold, or minimalist styles to create the perfect atmosphere for your cooking experience!

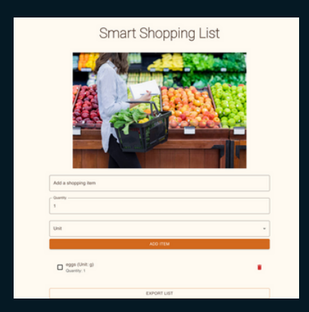
Printable Meal Plans
Add recipes to your meal plan and print them for easy meal prep and organization.

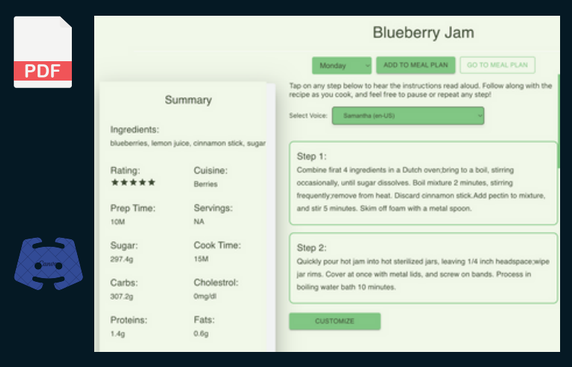
Advanced Recipe Filters
Filter recipes by cuisine type, cooking time, or dietary preferences to find exactly what you're craving.

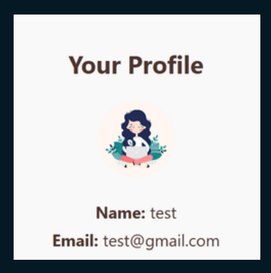
Social Sharing & Quick Access
Share recipes instantly with friends and family via discord, slack, and easily access FAQs for quick help.

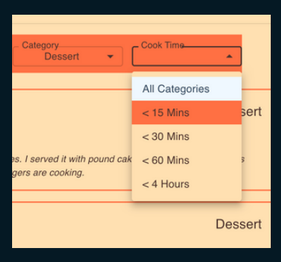












FUTURE ENHANCEMENTS

ADD YOUR OWN RECIPES

Allow users to contribute their own creations to the CookBook library for a more personal touch.

ENHANCED USER PROFILES

Enable users to track favorites, dietary preferences, and cooking history.

RESPONSIVE DESIGN

Optimize the interface for a seamless experience across all devices, including tablets and smartphones.

RECIPE RATING SYSTEM

Introduce a community-driven rating and review system for better recipe recommendations.

CUTTING EDGE TECHNOLOGIES

docker · groq · JS · 3 · TS · 5 · React

170 TESTS

92% BRANCH COVERAGE

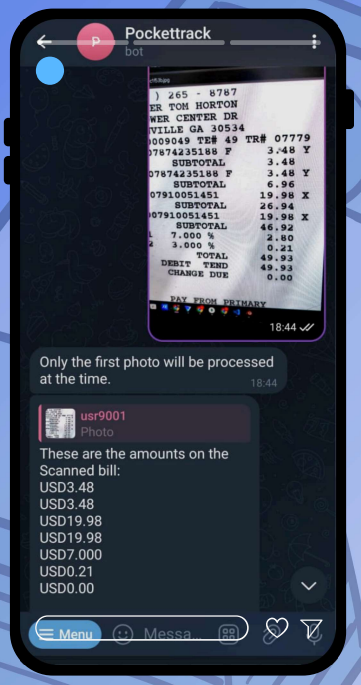
PocketTrack is a smart, interactive Telegram bot that makes expense management easy. Whether you're tracking daily spending or analyzing trends, PocketTrack is your reliable financial assistant. The new features further enhance its seamless and efficient user experience.

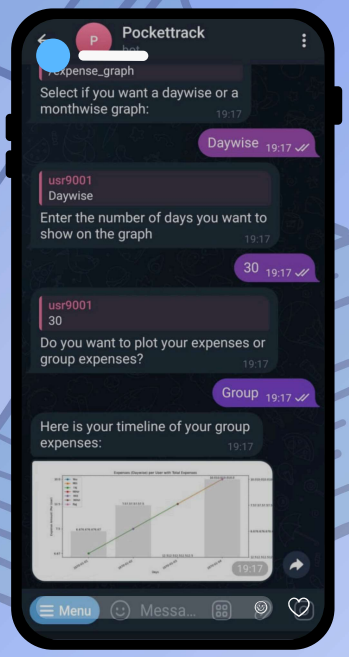
POWERED BY:

PYTHON FLASK PANDAS NUMPY OPENCV TELEGRAM

POCKETRACKER

YOUR BOT FOR TRACKING EXPENSES





New Features Added!

Email Summaries

- Receive detailed expenditure reports directly in your inbox, keeping you informed about your spending.

OCR Scan

- Automate data entry by extracting expense details from receipts or bills with the OCR scan feature.

Expense Graphs

- Visualize your spending with interactive charts, allowing you to analyze expenses by category, day, or month.

PDF Download

- Download expense reports in PDF format for easy sharing and future reference.

Take this To the Next level!

Predictive Expense Analysis

- Leverage AI to predict future spending trends based on your habits, alerting you to potential overspending and recommending savings opportunities.

Personalized Recommendations

- Receive tailored financial tips, budgeting strategies, and savings plans based on your unique financial data and spending patterns.

Investment Tracking

- Monitor and manage your investments alongside regular expenses, all in one unified platform.

Give our repo a visit

Live Demo

Poster:

SOFTWARE ENGINEERING

URL-SHORTENER 3.0

Shorten the Link, Amplify the Impact!

Group - 53: Prateek Kamath, Akarsh Reddy, Himanshu Singh
NC State University

REPOSITORY

INTRODUCTION

✨ TURN CLUNKY LINKS INTO CLEAN, PROFESSIONAL URLS: SIMPLIFY LONG, COMPLEX LINKS WITH JUST A CLICK.
📊 GAIN INSIGHTS WITH REAL-TIME ANALYTICS: TRACK CLICKS, USER ENGAGEMENT, AND GEOGRAPHICAL DATA.
🎯 IDEAL FOR EVERY NEED: PERFECT FOR MARKETERS, DEVELOPERS, AND ANYONE NEEDING EFFICIENT LINK SHARING.
🛠️ FULLY CUSTOMIZABLE: CREATE BRANDED OR CUSTOM URLS THAT REFLECT YOUR IDENTITY.
🔗 QR CODE GENERATION: EFFORTLESSLY CREATE QR CODES FOR OFFLINE SHARING.
⏳ SET EXPIRY DATES: CONTROL THE LIFESPAN OF YOUR LINKS WITH EXPIRATION SETTINGS.
📥 BULK URL SHORTENING: SAVE TIME BY SHORTENING MULTIPLE URLS AT ONCE.

TEST CASES

- 80% TEST COVERAGE: RELIABLE, TESTED CODE WITH EXTENSIVE COVERAGE
- 45+ TEST CASES
- FULLY DOCUMENTED CODE & TESTS: CLEAR, DETAILED DOCUMENTATION FOR QUICK SETUP AND INSTALLATION.

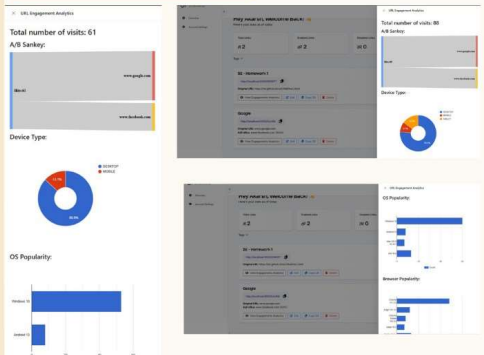
FEATURES FROM THE PREVIOUS VERSION

- Bulk creation of links
- Filter links based on tags
- Create Short links with protection
- Edit/Delete shortened links with their tags (from authenticated account)
- Set expiry date for links based on number of visits
- View analytics for your links

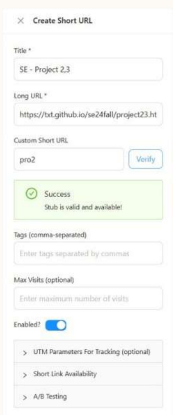
NEW FEATURES THIS VERSION

- A/B Testing: Run tests with multiple redirection URL variants and customizable weights. View live results on your dashboard!
- Enhanced Security with JWT: Secure backend and API communication using JSON Web Tokens (JWT) for better session management.
- Link Analytics: Track detailed device, OS, and browser data via our engagement API.
- Custom URL Stubs: Create personalized short URLs with custom aliases, validated through our stub API.
- Easy QR Code Copying: Copy QR codes as SVGs directly from the dashboard for easy integration.
- Fixed a few bug issues that were present in the previous version.

SCREENSHOTS

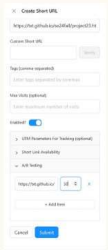


URL ENGAGEMENT ANALYTICS



CREATING SHORT URLS

QR CODE COPIED



A/B TESTING

TECH STACK

Flask, TypeScript, React, Firebase, Ant Design, GITHUB, HEROKU

FUTURE SCOPE

- Safe URL Detection: Automatically flag unsafe links with phishing, malware scanning, and reputation analysis for better security.
- Country/Region Targeting: Customize content based on geolocation, local preferences, and compliance for more personalized experiences.
- Custom Analytics Alerts - Notify users when a link achieves a certain number of clicks, or the URL is about to expire.
- Custom Themes for QR Codes- Allow users to design QR codes with custom colours, and shapes for better branding.
- Link Collaboration: Collaborate on managing and sharing links with teams or groups for easier link management.
- Improved performance - Cache popular links to reduce server load and speed up redirection.

BURNOUT EXTREME

YOUR ALL-IN-ONE FITNESS COMPANION

TEAM 74 : SAKSHI PHATAK || DINESH KANNAN || HARSHVARDHAN PATIL

ABOUT:

BurnoutExtreme is your ultimate health and fitness platform, offering smart tracking, personalized insights, and event integration to keep you motivated. It features a weight tracker for a streamlined weight loss journey and a CHATBOT that crafts personalized diet plans based on your TDEE. **ACHIEVE YOUR WELLNESS GOALS WITH EASE !!**

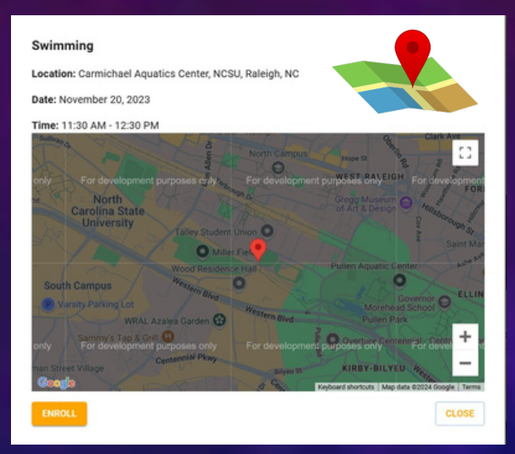
WHY CHOOSE BURNOUT EXTREME?

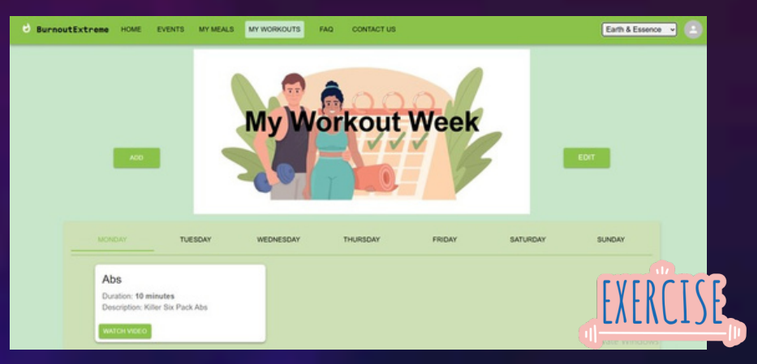
- Track workouts, meals, sleep, weight, and mood in one place.
- Get personalized diet plan recommendations from CHATBOT based on your health data.
- Discover local fitness events with Google Maps integration for easy access.
- Seamless weightloss journey with weight, burnout calorie and intake calorie tracking.
- Create custom workout plans that adapt to your progress.
- Your data is secure with Burnout Extreme's advanced privacy measures.

NEW AND IMPROVED FEATURES!!!

CATEGORIZE MEALS

Categorize meals into breakfast, lunch, dinner, making meal and calorie tracking faster and more intuitive.



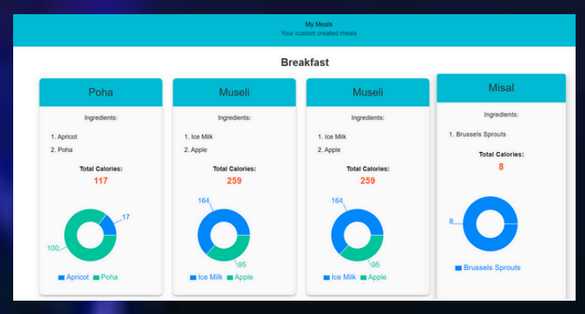


MOBILE SUPPORT

Fully optimized interface for seamless use across all devices.

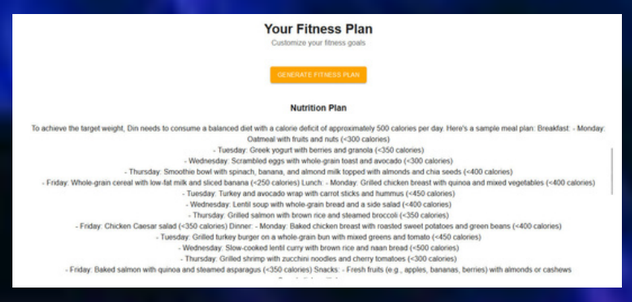
WEEKLY TRACKING

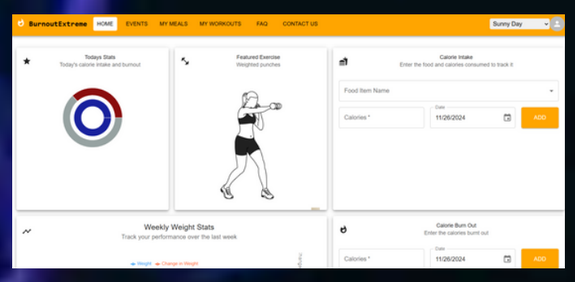
Track weight weekly along with tracking change in weight to check your gradual progress for seamless weightloss journey.



IMPLEMENTATION OF CHATBOT

Receive health related assistance from AI chatbot.





SORTING & FILTERING CAPABILITIES

Receive personalized meal and workout suggestions for balanced health goals based on your health data.

TRY US: BURTNOUT EXTREME

CUTTING EDGE TECHNOLOGIES

FUTURE ENHANCEMENTS

INTEGRATION WITH WEARABLE DEVICES

Support direct syncing with popular fitness wearables (e.g., Fitbit, Apple Watch, Garmin) for seamless activity tracking.

GAMIFICATION

Introduce achievement badges, fitness streaks, and rewards to make the fitness journey more engaging and fun.

FAMILY & FRIENDS COLLABORATION

Introduce shared goals and tracking for families or friends who want to work on fitness together.

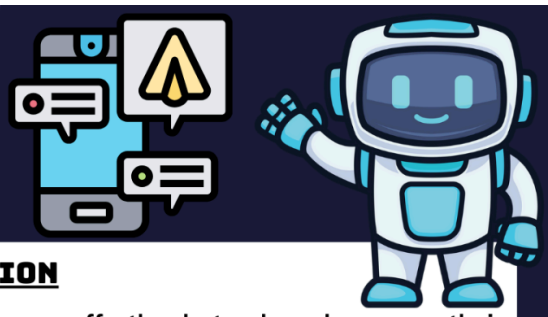
WEEKLY PROGRESS EMAILS

Send a summary email with stats, insights, and motivational tips based on weekly performance.

POSTER

TRACK MY DOLLAR

V6.0



INTRODUCTION

TrackMyDollar is a Telegram bot designed to help users effortlessly track and manage their personal expenses. It provides a simple and intuitive way to stay on top of your spending and take control of your finances.

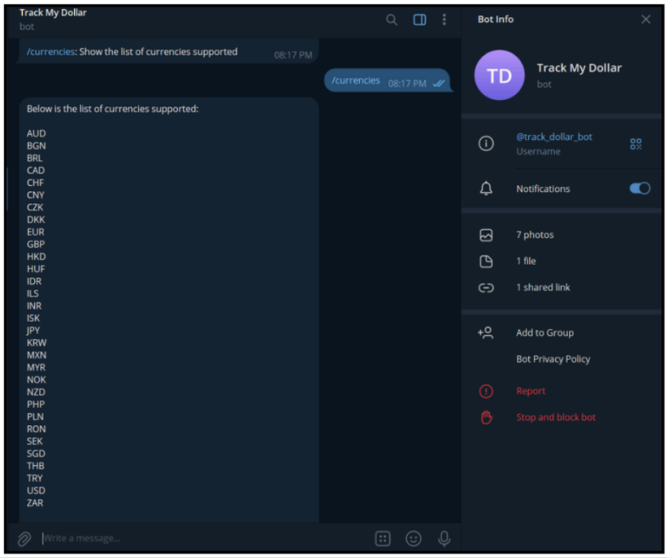
FEATURES

- ***Real-Time Currency Conversion:*** Added real-time currency conversion to automatically track expenses in the preferred currency.
- **Support for More Currencies:** Extended support will include a wider range of global currencies, enhancing flexibility for international users.
- **Email Reports:** Added email reports for monthly financial summaries to keep users informed.
- **Docker Support:** Implemented Docker support to facilitate easy deployment and ensure consistent environments.
- **Reminders Feature:** Added a feature for setting reminders to prompt users about upcoming expenses or budgeting activities.
- Implemented **bug fixes** for calendar and budget commands

FUTURE SCOPE

- **Database Integration**
- **Budget Recommendations**
- **Advanced Analysis**

RUNNING SYSTEM



GITHUB REPO

VIDEO

TEAM 51

AJITH
SUHAS
KRISHNA

COINCANVAS

TRANSFORM YOUR FINANCIAL STORY

INTERESTED IN OUR PROJECT?

Scan for more information!

WHY COINCANVAS?

Tired of juggling receipts, splitting bills, and wondering where your money goes? CoinCanvas is here to transform your financial tracking from chaos to clarity! CoinCanvas is a smart expense management platform that automatically organizes your spending, optimizes group payments, and provides AI-powered insights—all while adapting to your schedule and lifestyle. Whether you're a young professional sharing expenses with roommates, a family tracking household spending, or someone working towards financial goals, CoinCanvas is the tool for you.

- **Flexible**: Record expenses on your schedule—not ours.
- **Smart**: AI-powered analysis delivers personalized insights and spending recommendations.
- **Collaborative**: Effortlessly split expenses, minimize transactions, and keep everyone on the same page.

CoinCanvas
EXPENSE TRACKING APP

WHAT'S NEW?

1. **Enhanced Time Flexibility with Date Selection:** Building on basic expense tracking, CoinCanvas introduces a flexible date selection system. Unlike TUT's restrictive just-in-time entries, users can now record expenses from any time period, making it more practical for real-world use.
2. **Improved Cross-Platform Functionality**: While TUT claimed cross-platform capabilities, CoinCanvas delivers a truly seamless experience across web, mobile, and desktop platforms. Our Flutter-based frontend ensures consistent performance and user experience across all devices.
3. **AI-Powered Financial Intelligence**: CoinCanvas introduces sophisticated AI analysis capabilities, a feature entirely absent in TUT. This system offers:
   - Smart spending pattern recognition
   - Personalized budget recommendations
   - Predictive expense forecasting
   - Anomaly detection
   - Data-driven saving suggestions

These enhancements make CoinCanvas not just an iteration, but a significant leap forward in personal finance management tools.

Up to 149 test cases!

Stable and Robust!

Continue to be raising!

AND THE NEXT?

- **Phase 1: Core AI Intelligence (6-8 weeks)**
  - **Smart Financial Assistant:** Implementation of an AI-powered chatbot that provides instant financial advice and spending insights based on user transaction history and behavior patterns. (3-4 weeks)
  - **Predictive Analytics Engine:** Development of a machine learning system for automated expense categorization, spending pattern detection, and budget forecasting with early warning alerts. (3-4 weeks)
- **Phase 2: Social and Security Features (7-9 weeks)**
  - **Collaborative Finance Platform:** Creation of a group expense management system with automated bill splitting, shared budgets, and collective goal tracking features. (4-5 weeks)
  - **Enhanced Security Framework**: Implementation of AI-driven fraud detection system with real-time transaction monitoring and instant alerts for suspicious activities. (3-4 weeks)
- **Phase 3: Advanced Integration (6-8 weeks)**
  - **Financial Institution Hub:** Development of a secure integration system for connecting multiple bank accounts and credit cards with automated data synchronization. (3-4 weeks)
  - **Smart Bill Management:** Implementation of an intelligent bill tracking system with payment scheduling, reminders, and expense optimization suggestions. (3-4 weeks)

HOW WE BUILD IT?

FastAPI

https://github.com/DFY-NCSU/CoinCanvas

NC STATE UNIVERSITY

JINISH SHAH
NIRMIT DELIWALA
NISARG JASANI

Auction Sphere:

Redefining Auctions: Smarter, Better and Faster!

Your gateway to a smarter, faster, and more transparent auction experience—bringing buyers and sellers together on a dynamic platform designed to redefine how you bid, win, and trade!

REPOSITORY QR CODE *LIVE DEMO QR CODE*

01. What is Auction Sphere?

Auction Sphere is a digital marketplace designed to bring buyers and sellers together in a seamless, secure, and dynamic online environment. Our platform revolutionizes the auction experience by combining cutting-edge technology with user-centric features.

Buyers and sellers start by creating profiles on the platform. Sellers can register their products with custom settings, such as desired prices, bidding durations, and minimum bids. Buyers can then browse listings, place competitive bids, and track the status of their offers in real-time. Once the bidding concludes, transactions are facilitated securely and efficiently.

02. Why is the need for Auction Sphere?

Inefficiencies in Traditional Auctions:
Traditional auctions are often held in physical locations, limiting participation to those who can attend in person.

Lack of Transparency in existing platforms:
Many online auction platforms suffer from unclear bidding processes, hidden fees, or delayed updates that can erode trust between buyers and sellers.

Demand for Personalization:
Buyers and sellers often face a generic, one-size-fits-all experience on auction platforms, which can be personalized dashboards for both parties, showcasing relevant data like bidding history, sales analytics, and recommended actions.

Rise in Digital Commerce:
With the increasing shift towards online marketplaces, there's a growing need for specialized auction platforms that cater to unique buyer-seller dynamics.

TECHNOLOGY STACK

React, .js, Python, SQLite, Flask

03. Key Features

- **Automated Email Notifications**
Customized emails are sent to both buyers and sellers upon the conclusion of an auction.
- **User Interaction Analytics**
Tracks and analyzes user engagement with listed items, such as views, bids, and interactions.
- **Customizable Bid Links**
Sellers can set minimum and maximum bid amounts for their items, ensuring fair bidding and protecting their desired price points.
- **Direct Buy / First Come, First Serve Option**
Offers sellers the flexibility to bypass the bidding process and sell items directly to the first interested buyer.

04. Methodology

1. **Frontend Development:**
- Revamped the website with a modern, user-friendly interface.
- Enhanced navigation and visual appeal for seamless user interactions.
2. **Backend Development:**
- Implemented Flask for efficient server-side operations.
- Used SQLite to manage and store data reliably.
3. **Feature Integration:**
- Introduced key features like customizable bids and first-come-first-serve options.
- Automated email notifications for auction updates.

05. New Features and Improvements

1.Personalized Profile Dashboard for Buyers & sellers
- *Display products listed by seller*
- *History of previous sales*
- *Bidder information per product*

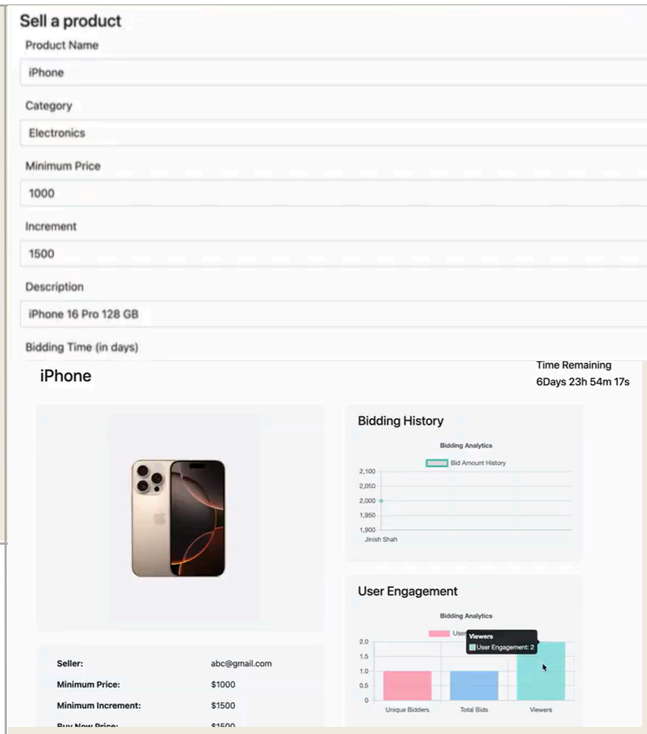
2. Personalized dashboard for buyers:
- *Display product bids by buyer*
- *History of previous purchases*
- *Seller information per product*

New Test Cases
40 frontend
20 backend

3. Revamp Website UI
- *Added a better home landing page which is more informative*
- *Added Categories tab and List product as per categories*
- *Added more parameters to describe the product on sale*
- *Countdown for remaining bidding time per product*
- *Send email to the user with winning bid to confirm purchase*

4. Analytics
- *Interactive Plots for bidding analytics per product*
- *Dynamic Charts to depict number of users: buyers and sellers to attract more traffic to the website*

5. Authentication
- *Authenticate email ID for user registration*
- *Add validation checks for input fields such as number, email id, password*



06. Future Milestones

- **Integrated Chat for Negotiations:**
Enable buyers and sellers to negotiate directly within the platform using a secure, real-time chat functionality. This feature fosters transparency, improves communication, and allows for custom deals, making the auction process more dynamic
- **AI-Powered Recommendations:**
Implement AI algorithms to suggest products, auctions, or sellers based on user preferences, browsing history, and bidding patterns. This personalized approach increases user engagement and satisfaction.
- **Auction Calendar and Reminders:**
Add a calendar feature allowing users to save auction dates and set reminders for specific products or events, ensuring they never miss an opportunity.
- **AR-Based Product Visualization:**
Introduce augmented reality features that allow buyers to view products in their real-world environment (e.g., furniture or art) before placing bids.

Dollar Bot

Introduction

Dollar Bot is a financial assistant on Telegram that helps users manage expenses easily. With voice commands and a simple interface, it allows users to track spending, set budgets, and stay on top of their financial goals—all without needing an extra app.

Tools Used

CSS HTML

Whats New?

- Top Expense Category Insight:

Dollar Bot now identifies your top expense category over a specific time period (e.g., week or month). This insight helps you focus on managing expenses in critical categories where you spend the most, making it easier to optimize your budget.

- Set Monthly Spending Limit :

Users can set monthly spending limits. The bot tracks their spending, provides updates on the total spent and remaining balance, and integrates with budget tracking to help them stay within their financial goals.

- Daily Expense Reminder:

A new scheduling feature sends reminders to log daily expenses if none have been recorded. This encourages consistent tracking and ensures you stay on top of your financial activities.

- Savings Goal Management:

Set, track, and manage your savings goals effortlessly. Define target amounts, monitor progress, and celebrate milestones.

Testing Strengths

- Daily Expense Reminder: Ensures reminders are sent when no expenses are logged and not sent when expenses are recorded. Also tests error handling for user history retrieval.
- Savings Goal: Validates setting, viewing, and managing savings goals, including handling invalid inputs and displaying savings progress. Also checks for missing goals.
- Top Expense Category: Verifies accurate identification of the top expense category, handling edge cases like no data, tied totals, decimal values, and error situations.
- Comprehensive Test Coverage: Over 150 test cases ensure all features perform reliably, even with edge cases, guaranteeing system stability as updates are made.

Implementation Milestones

1. Enhanced Expense Management

Goal: Allow users to create custom expense categories for more personalized tracking.

Plan: Allow users to create and assign transactions to custom categories (e.g., Groceries, Transportation).

2. AI-Powered Expense Predictions

Goal: Predict future expenses based on past spending.

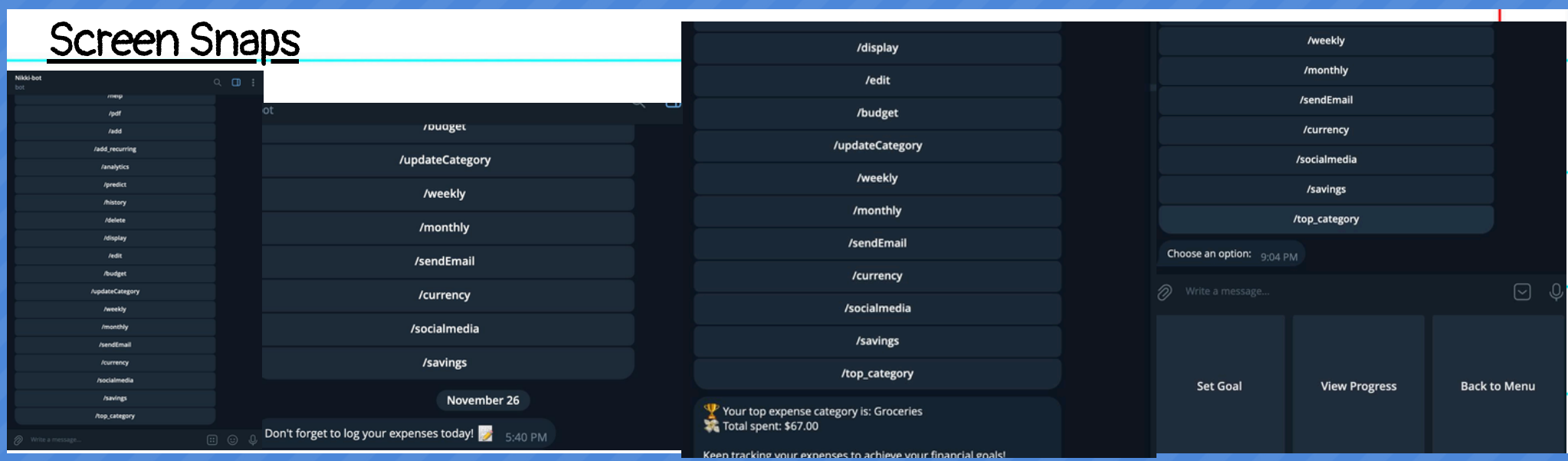
Plan: Use machine learning to forecast expenses and send alerts when users are likely to exceed their budget.

3. Financial Health Reports

Goal: Provide monthly financial health reports with insights and recommendations.

Plan: Generate and send monthly reports summarizing spending, savings, and improvement tips.

Screen Snaps



Team 62

<- Repo

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Demo ->

The Movie Cinema

Project Overview

The Movie Cinema acts as a personalized movie recommendation engine that combines data from TMDB and IMDB reviews to suggest films that match your preferences, using both content similarities and audience reactions to make smarter suggestions.

Tech Stack

Whats new?

- **Collaborative Filtering**: A movie recommendation app that connects users through shared genre preferences, allowing them to discover films highly rated by others who enjoy similar categories like action, horror, or romance, while tracking viewing history and ratings to refine future suggestions.
- **Individualized Following**: A social movie discovery feature that enables users to follow fellow movie enthusiasts, see their watchlists and ratings, and get notifications about their recent movie reviews and recommendations, creating a community-driven platform for cinephiles.
- **Streaming Availability:** A streaming availability locator that instantly shows users where they can watch their chosen movie across major platforms like Netflix, Hulu, and Prime Video, complete with pricing and subscription information for each service.

Future Improvements

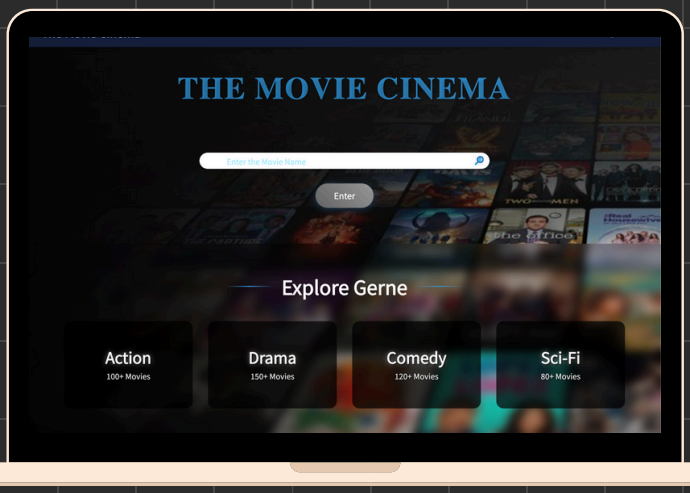
- **Progressive Web app**: A PWA conversion would transform the movie recommendation website into an installable app-like experience, offering offline functionality, push notifications.
- **More like this**: A "More Like This" feature analyzes the current movie's key attributes (genres, actors, directors, themes, and tone) and uses similarity algorithms to recommend a curated list of films that share multiple overlapping characteristics
- **Neural Collaborative Filtering**: ADeep learning model that captures complex user-item interactions to predict user preferences more accurately than traditional collaborative filtering by learning non-linear relationships between users and movies.
- **Custom rating:** The Movie Cinema could become a hub of insightful reviews and implementing critique features like ratings and comments on a movie.
- **Containerization**: Enabling Docker support for portability and ease of deployment across different environments.

Test Coverage codecov 86%

Test Cases 59

Visit Repo

Project Report



Group

91

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- Anjan Diyora

CSC 510 Software Engineering
Project - 3

(https://github.com/MasterShifu619/TaskMasterPro.git)

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TASKMASTER PRO

github repo

WHAT IS TASKMASTER?

Are you feeling swamped by a never-ending list of tasks and deadlines? Introducing TaskMaster Pro, your comprehensive solution for optimizing your workload and boosting your productivity. Whether you're a student balancing multiple assignments, a professional overseeing projects, or just someone aiming to stay organized, TaskMaster Pro is customized to fit your specific requirements.

With cutting-edge features such as collaborative lists, smart task analysis, and instant notifications, you'll always stay on top of your deadlines! Our platform enables seamless collaboration, effective prioritization, and effortless task management.

TECH STACK & TESTS

PYTHON, HTML, DJANGO

The application goes through strict testing with **96 test cases** covering user authentication, list and task management, logic flow, user analytics, etc.

FUTURE GOALS

- **Recurring Tasks:** Add functionality for users to set up recurring tasks and reminders for regular activities.
- **Collaboration Tools:** Enhance collaboration features with real-time editing, comments, and file sharing, allowing teams to work together more effectively on shared tasks.
- **Enhancing Task Suggestions:** Incorporate additional inputs, such as estimated completion time and task complexity, to improve the accuracy of next task suggestions.

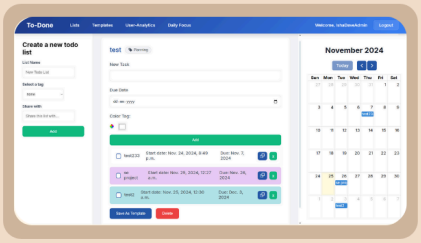
PREVIOUS FEATURES

- **User Productivity Analysis:** Gain insights into productivity trends to optimize efficiency
- **Fixed Color Palette for Jobs**

- **Calendar Dashboard:** View tasks in a monthly calendar for easy tracking and management.
- **Task Analysis:** Predict busier days and send email to users for upcoming due dates

NEW FEATURES

- **Task Cloning:** Added functionality of cloning tasks for easier addition of recurring tasks.
- **Delete function for templates and UI/UX Redesign**

- **Quick Task Rating:** Prompt users to rate tasks based on satisfaction after completion.
- **Task Suggestion:** Recommends next best task based on urgency and priority.

- **Daily focus theme:** Set daily themes to help users concentrate on specific task types.