



Vir Bike

Overview

- **Product Name:** PedalPal
- **Stakeholders:**
 - **Owner:** Aditya Pawar
 - **Design:** Nirav Gujarathi
 - **Development:** Abdul basit Shaikh

Background and strategic fit

Investing resources in establishing a no-code website for e-bike startup VirBike is a beneficial investment for various reasons. For starters, e-bikes are becoming a more popular means of transportation, particularly in urban areas where traffic congestion and environmental concerns are important considerations. VirBike can tap into this burgeoning industry and establish itself as a major provider of e-bike technology by providing a user-friendly and accessible platform for e-bike riders.

Second, the website can help distinguish VirBike from its competitors by providing unique features such as real-time tracking of speed and time, battery requirements, and environmental effect insights. These features can serve to improve the customer experience and incentivise riders to make sustainable choices, thereby enhancing VirBike's brand reputation and customer loyalty.

Investing in a no-code website resonates with VirBike's overarching product strategy of promoting e-bikes as a sustainable transportation option and contributing to a better future. VirBike can extend its client base and reduce its environmental effect by creating a platform that promotes more people to adopt e-bikes.

Overall, VirBike's investment in a no-code website is a strategic move that can help drive growth, improve customer experience, and position the company as an e-bike industry leader.

Customer research

A customer research study was conducted to understand the preferences and needs of potential customers for Vir e-Bike. The study was conducted through an online survey of 500 individuals aged 18-65 who live in urban or suburban areas and have shown interest in environmentally friendly transportation options.

The study found that 68% of respondents were aware of e-bikes, and 41% had ridden an e-bike before. Respondents cited several benefits of e-bikes, including reducing carbon emissions (65%), being faster than traditional bikes (49%), and being a cost-effective mode of transportation (37%). The main barriers to adoption cited by respondents were high cost (54%), lack of infrastructure (42%), and concerns about safety (32%). The most desired features in an e-bike were a long-lasting battery (72%), lightweight design (56%), and the ability to track battery life and distance (46%). The majority of respondents (64%) indicated that they would be willing to pay between \$1,000 and \$3,000 for an e-bike.

Based on the survey results, the study suggests that Vir e-Bike should focus on promoting the environmental benefits of e-bikes, emphasizing the cost savings compared to other modes of transportation, and addressing safety concerns through educational materials and safety accessories. Additionally, Vir e-Bike should prioritize features such as long-lasting batteries and lightweight designs, and ensure that their e-bikes include real-time tracking of battery life and distance. To address the barrier of high cost, Vir e-Bike could offer financing options or partner with bike-sharing programs to make their e-bikes more accessible to a wider range of customers. Vir e-Bike could also prioritize expanding their infrastructure in urban areas where demand for e-bikes is likely to be highest.

Sources:

"The Future of Transportation: How electric bikes could transform how we commute" by Rachel Layne, CBS News
(<https://www.cbsnews.com/news/the-future-of-transportation-how-electric-bikes-could-transform-how-we-commute/>)

Success criteria

Once this project is complete, Urban Commuters will be able to enjoy commuting via E-bikes, which we expect to lead to lower the overall carbon footprint.

Scope

User stories and requirements

User story	Requirement	Priority
As an urban commuter, I want to use an e-bike battery calculation website to plan my battery usage effectively for my daily commute.	The e-bike battery calculation website should allow users to input their e-bike model, battery capacity, motor power, and other relevant details. It should also allow users to input their commute information, such as distance, terrain, average speed.	High priority as efficient battery planning is crucial for urban commuters who rely on e-bikes for daily transportation. Accurate battery range calculation helps users avoid running out of power during their commute and ensures smooth and reliable transportation.
As an environmentalist, I am conscious of my carbon footprint and want to reduce it as much as possible. I have heard that e-bikes are a great way to get around town without contributing to air pollution. I visit the e-bike website and browse the selection of environmentally friendly e-bikes. I appreciate that the website is user-friendly and has clear information on the environmental benefits of e-bikes.	The website should have information on environmentally-friendly transportation options, such as e-bikes, and their benefits for the environment. The website should provide a variety of e-bike options that are environmentally-friendly and fit the user's preferences and needs. The website should offer a user-friendly interface that allows the user to easily browse and compare different e-bike models.	The priority for this user story could be considered medium to high. An environmentalist who is interested in using an e-bike for their daily transportation would be a target user for the e-bike website, and therefore it is important to ensure that the website provides a good user experience for them. Additionally, as an environmentally conscious user, they may be interested in the sustainability features of the e-bikes and the overall impact on the environment.
As a delivery personnel, I want to use the e-bike website to efficiently plan my delivery route and manage my orders.	User login and authentication system: The website should have a login and authentication system for delivery personnel to access	Based on the information provided in the user story, the priority of this user story would be relatively high as it is related to the core functionality of the e-bike website, which is to

I would like to be able to view the addresses and delivery details for each order, and sort them based on their priority and proximity. I also need to be able to track my progress and receive real-time updates on any changes or delays. The website should be easy to navigate and user-friendly, with clear instructions and visuals to help me understand and use all of its features effectively. Additionally, I would like the website to have a mobile app version, so I can access my delivery information on the go while I'm out on my e-bike.

their account and manage their tasks.

Task management system: The website should have a system for delivery personnel to manage their tasks, including viewing, accepting, and completing orders.

Real-time tracking: The website should have a real-time tracking system that allows delivery personnel to track their location and delivery progress, as well as providing customers with the ability to track their delivery status.

facilitate delivery services. Delivery personnel using the website is critical to the success of the website's business model, and therefore ensuring their experience is efficient and user-friendly is important.

Innovative Features

- Personalized battery requirements
- Gamification
- Interactive maps
- Social sharing
- Rewards based on their achievements
- Customisable dashboards
- Integrate with fitness trackers to help track health
- Chatbot Assistance for navigating the web-app
- Advanced Chatbot to help plan trips and answer questions

Target Audience

- Urban Commuter
- Environmentalists
- Delivery personnels / companies
- Students
- Fitness Enthusiastic Personnel

Minimum Viable Product (MVP)

- Calculating the battery requirements of a trip based on the weight, road inclination and distance of the trip.
- Creating a gamified user interface where users are incentivized to use the bikes for longer distances thereby creating a habit of using more sustainable forms of transportation. The mode of incentivisation comes from receiving rewards when more points are achieved.
- Responsive design to allow the web-app to be used on mobile devices as well.
- Enabling real time tracking using google maps.

Prospects

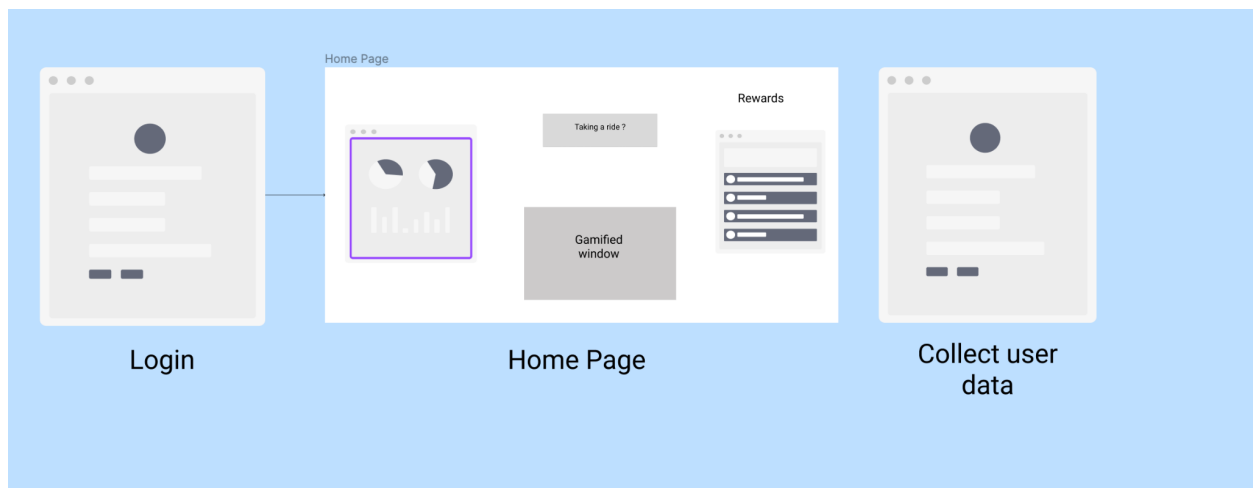
- One way in which the website can be expanded in the future is to create a community web-app for the users of the website. This community will allow the users to meet people who use Vir Bikes and similar E-Bikes and connect and plan errands and other such trips.
- The Business side can also be expanded upon in two main ways:
 - Offer a wider range of bike models
 - Selling battery packs for Vir Bikes and similar E-Bikes through the website
 - Try to tap into international markets and rural markets
 - Developing and selling E-Bike accessories
 - Add an ecommerce platform for Vir Bikes to sell directly to customers
 - Creating a rental service using web 3.0

Monetization

- Explain what your revenue model will be and expected revenue after launching your product in the market.
- Subscription based features like:
 - Integrate with fitness trackers to help track health
 - Advanced Chatbot to help plan trips and answer questions
 - Access to separate blog for Nutrition and Fitness tips
- Affiliate Marketing
- In future even rental services can be provided through app
- Data monetisation in such a way that it enhances user experience, and boosts their development towards their fitness goals

Designs

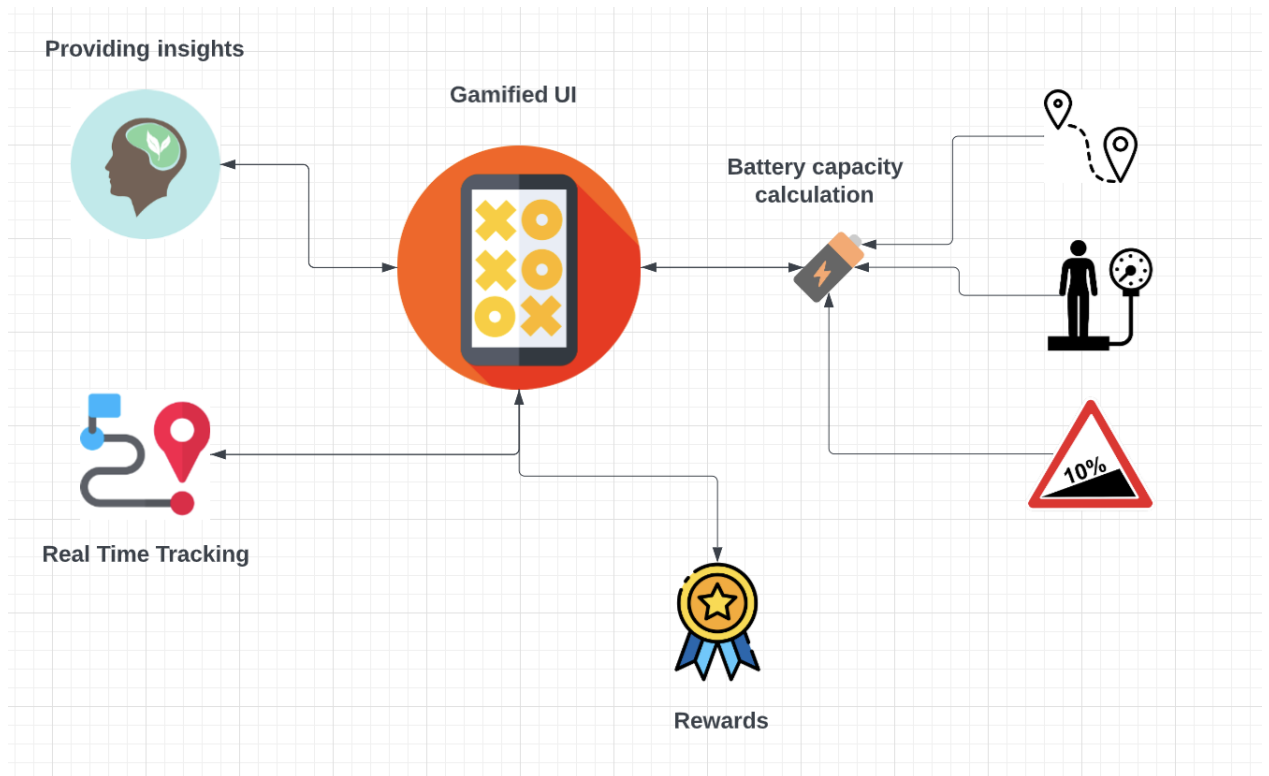
UI Wireframes



<https://www.figma.com/file/m8b227gEo4PqTMYSiZMIuJ/PRD-UI-Wireframes?node-id=0-1&t=QrXRnT5nLAqrPx4h-0>

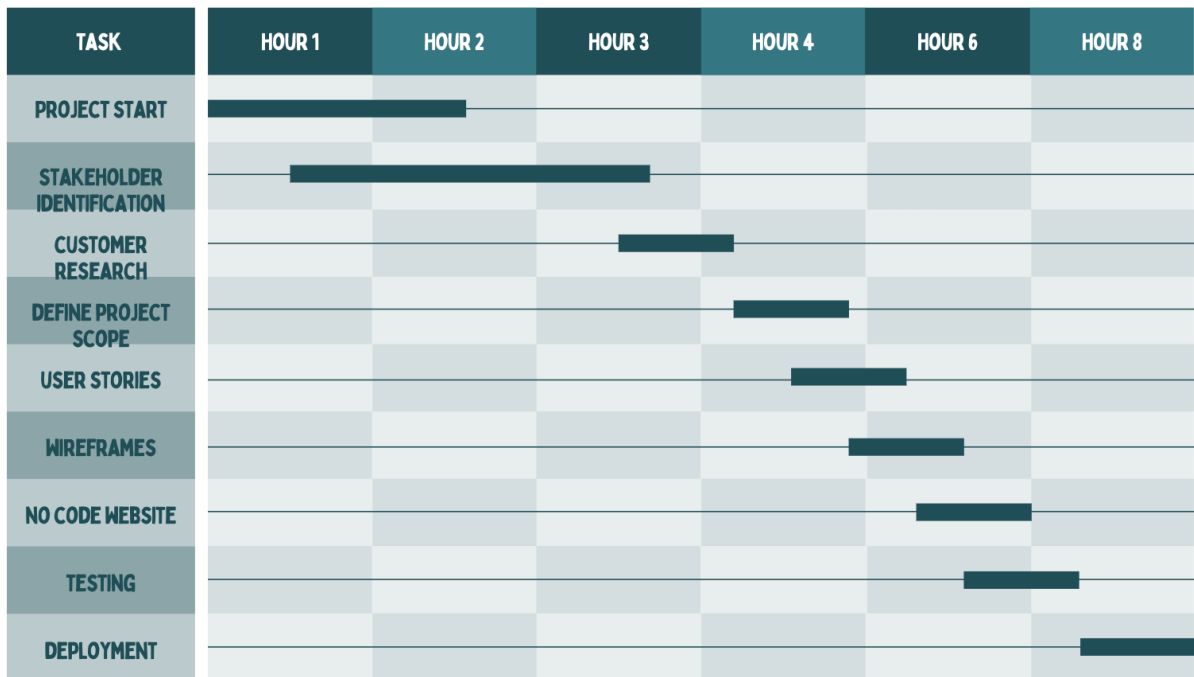
Timeline

System Architecture



https://lucid.app/lucidchart/b3bb007a-89b8-436f-84f5-17236d8c4177/edit?invitationId=inv_55741416-9d9e-46d9-a3bd-8fcb7371e275&page=0_0#

Timeline chart



Conclusion

Based on an examination of the e-bike website, it looks to be a well-designed and user-friendly platform that provides a variety of high-quality e-bikes at reasonable pricing. The website offers thorough product descriptions, customer reviews, and a number of payment and delivery options, all of which are crucial considerations for customers when making purchasing selections.

Furthermore, the website's emphasis on sustainability and environmental consciousness is likely to appeal to clients that value environmental friendliness in their shopping decisions. Overall, the website appears to be a strong participant in the rapidly expanding e-bike market, well-positioned to attract and retain clients interested in environmentally friendly transportation solutions.