



Boundless Charging Report

Table of content

| | |
|--|-----------|
| Project Overview | 2 |
| Chosen agile project management methodology | 3 |
| Project Charter..... | 5 |
| Gantt Chart..... | 10 |
| User Documentation of Website | 11 |
| User Documentation of Prototype | 17 |
| Reference List | 20 |

Project Overview

Introduction:

This report will give an overview of the E-commerce business idea Boundless Charging. Wireless solutions have become a popular trend in the smartphone industry together with portable charging through the utilisation of power banks. Both these ideas have made charging our smartphones more convenient; however Boundless Charging has identified a problem and gap which it aspires to fill. As innovative as these smartphone charging tools are, they still have one flaw which is that they are not completely wireless and still require a power cord in order to be operational and this is where Boundless Charging comes into play. Boundless Charging is a start-up idea that will revolutionize the mobile charging industry by combining wireless charging technology with portable power supply. This idea will be in the form of clothing items which will utilise kinetic energy generated when worn and in motion to charge your smartphone from the comfort of your pocket.

The report will further define the tools, techniques and documentation that will be required to develop a functional website and mobile application prototype for Boundless Charging.

Business case:

This project entails developing a fully functional website and mobile prototype for our business. The main purpose of the implementation of the website and prototype is so that we can increase the awareness of our product which in turn increases our profitability. In addition, the website would be integrated with a backend server side.

Project Objectives:

The main objectives of this project are:

- Increase customer retention
- Increase market share
- Reduce advertising and increased profitability
- Improve customer Experience

Deliverables:

Tasks that we will be completing throughout this project:

- Identify and obtain resources
- Project documentation
- Develop a website using Visual Studio Code
- Set up Firebase Realtime database and Authentication
- Develop a mobile application using Figma

Risks

Risks that might affect the progress of the website:

- Unexpected bugs on the website
- Hardware/Software failure
- Scope creep
- Communication risk

Chosen Agile project management methodology

Project Management Methodology is the combination of logically related principals, methods and processes that determine how a project can be planned, developed, controlled and delivered throughout its implementation process until it is complete (teamwork,2021).

The purpose of implementing a project methodology is for our team to determine the best approach to be taken in order to develop a website and mobile application prototype for boundless charging. The agile project methodology we have chosen to use is SCRUM, which is a framework that supports the agile approach. According to (), "Scrum is a framework of rules, roles, events, and artifacts used to implement Agile projects. It is an iterative approach, consisting of sprints that typically only last one to four weeks. This approach ensures that your team delivers a version of the product regularly." This quote implies that by utilizing the scrum methodology work will be divided into smaller chunks known as sprints, in which boundless charging's website and prototype will be built within a period of a few weeks and then assessed by the

relevant stakeholders, with the possibility to inspire changes for the project's future. According to (), "Similarly, the scrum in IT believes in empowered self-managed development teams with three specific and clearly defined roles. These roles include – Product Owner (PO), Scrum Master (SM) and the development team consisting of the programmers and testers."

We believe that this approach is most suited to our project and the following criteria was taken into consideration when selecting this methodology:

Project Scope

This project requires our team to create and develop a functional website, database, and a mobile application prototype. Utilizing scrum will ensure that our deliverables are broken down into manageable sprints thus assisting us in completing our deliverables in a timely and effective manner.

Flexibility

Scrum projects encourage frequent check-ins, updates and feedback from team members and relevant stakeholders after each sprint therefore change can be implemented quickly without losing weeks of work.

Visibility

The scrum methodology enables our team to track the project's progress throughout its duration thus making collaboration easier and ensuring that each team member is involved in the development of the project from start to finish.

The following is a formal documentation that will be used to officially recognise the project's existence.

Project Title: Boundless Charging

| | | | |
|-----------------------------------|------------------|---------------------------------------|---------------------|
| <u>Project Champion</u> | Tanweer Hamdulay | | |
| <u>Project start date:</u> | 25 May 2022 | <u>Project end date:</u> | 24 June 2022 |
| <u>Authorisation Date:</u> | 31 May 2022 | <u>Project Champion Email:</u> | 4030362@myuwc.ac.za |

Business Problem

(This section of the charter explains what business problem is being solved with the project. It addresses the question of why the e-commerce project is being undertaken. The project manager needs to know this, as he or she will need to make many day-to-day decisions, keeping the business case in mind.)

Wireless charging is not completely wireless because a power cord is still required. When heading out, it's simple to forget about this cable and it requires effort to carry it around with you. Damage to the cable might potentially slow down charging speeds or prevent it from working altogether. Furthermore, in order to be a reliable source of power for mobile devices, portable chargers such as power banks must always be charged, which takes a while and is something extra you have to keep track of.

| | |
|---|---|
| <u>Project objectives:</u> <u>This section addresses how the project ties into the group's strategic e-commerce goals and includes the project objectives that support those goals.</u> | <u>Benefits:</u> <u>Benefits to potential stakeholders by doing the project.</u> |
| 1. Customers retention | 1. By offering our consumers discounts on our products and free shipping, we would be able to retain our consumers. In addition, we will ensure that we retain our consumers, we would reduce our customers response times. This would also increase our customer experience. |

| | |
|--|---|
| 2. Increased market share | 2. Due to the unique value proposition that we offer to our consumers our business would have a competitive advantage over our competitors (Nike, Adidas, H & M and Mr Price, among other clothing stores). The wireless charging clothes we sell at our store would increase our market share. Product differentiation amongst competitors |
| 3. Reduced advertising costs and increased profitability | 3. As a result of having our own e-commerce website and mobile applications our business would save funds as we would not solely rely on promotions and advertisements. Additionally, reducing the advertising costs would increase our revenue and profitability. |
| 4. Improve consumer convenience | 4. Consumers that have the luxury of purchasing this product would have the ability to charging their phone from literally anywhere in the world. All that is required from them is to generate kinetic energy. |
| <u>Stakeholder Requirements:</u> | <u>Project stakeholders:</u> |
| Project stakeholders Tanweer, Aaliyah, Abdul Qadir and Dakalo will develop an e-commerce website and mobile application for Boundless charging will be developed in order to showcase and have customers purchase the products on display. Furthermore, both the website and application would need to be user friendly and adhere to modern UX/UI design principles. The website and application will allow the user to login, browse through a product catalogue, add items to cart, and finalize their purchase through a checkout process that offers both online payment as well as cash on delivery. Finally, delivery will be done through an external company with | Tanweer (Project manager) Aaliyah Abdul-Qadir Dakalo End user – consumer/client Investors Material suppliers |

| | | | | | |
|--|----------------|--------------------------|--------------------|---|--------------------------------------|
| tracking details provided to the client on the Boundless charging page. | | | | | |
| Deliverables: <u>List the core requirements of your e-commerce website. This includes functional and non-functional requirements.</u> | | | | | |
| 1. Identify and obtain resources | | 2. Project documentation | | 3. Website creation using Visual Studio Code | 4. Set up firebase Realtime database |
| 5. Mobile application creation using Figma | | | | | |
| Roles and responsibilities: | | | | | |
| Name | Surname | Student number | Role | Cellphone | Email |
| Aaliyah | Ajouhaar | 3918958 | Software Tester | 0658202555 | 3918958@myuwc.ac.za |
| Tanweer | Hamdulay | 4030362 | Project Manager | 0762560452 | 4030362@myuwc.ac.za |
| Abdul Qadir | Ebrahim | 4051626 | Software developer | 0815389165 | 4051626@myuwc.ac.za |
| Dakalo | Makatu | 3953121 | Business Analyst | 0608239579 | 3953121@myuwc.ac.za |
| Scope: | | | | Out of Scope: | |
| The outcomes that must be achieved (Core functionality) Register and sign in – Users will be able to create their personal user login or sign in after they have been through the registration process. Browse and purchase products - Easy to use fully functioning application where customer will be able to login, add to cart, check out and pay for products purchased online. | | | | The outcomes that could be achieved (Functionality you could add given resource constraints) A chatbot that will assist with queries, complaints or suggestions made by customers. Furthermore, the chatbot will be pre- loaded with responses to a set of queries such as a welcome message etc. | |

| <u>Risks:</u> | <u>Constraints:</u> | <u>Mitigation:</u> |
|--|---|--|
| <ul style="list-style-type: none"> - Not providing sufficient usage of charging materials on clothing items. - Inability to provide cost- effective clothing items. - Time constraints (Not sticking to allocated timeslots for project deliverables). - Communication risk -Scope creep - Insufficient research on health and safety in the usage and manufacturing of the product. - Inability to create an effective, easy to use Website and application. | <p>TIME - The project has an allocated period in order for all deliverables to be completed.</p> <p>SCOPE - The scope of the project is specific and should not be derailed or overlooked by other additional tasks with little relevance to the successful completion of the project.</p> <p>QUALITY – The project requires much research and resources in order to reach successful quality deliverable completion.</p> <ul style="list-style-type: none"> - Clothing charging ability - Wash instructions would need to be strictly followed - Material safety (Non-hazardous to the client or belongings) <p>COST - Material costs</p> | <ul style="list-style-type: none"> - Prioritize and report potential risks to all project members - No limitation to idea generation process when encountering an obstacle -Research project materials for the best quality and cost - Project members will take responsibility for their actions and work timeously toward deliverable deadlines. -The project team will make use of Trello and Team Gantt to ensure that specific tasks for the project are completed by their appropriate due dates. -The project will have weekly meetings on Google Meet to ensure communication within the group is active. As well as to ensure everyone has the same agenda with regards to the project objectives to avoid scope creep. Further |

| | | |
|--|-------------------|--|
| | | communication will take place via a WhatsApp group chat. |
| Assumptions: <u>Known factors about the project that are not flexible.</u> | | |
| <p>1. The scope of this project will not be changed.</p> <p>2. The project end date will not be changed.</p> <p>3. The implementation of the e-commerce website and mobile application will increase the prospective consumers which would increase the revenue</p> | | |
| <u>Comments/Notes:</u> | | |
| <p>From a systems perspective both our website and mobile application platform will be delivered with simplicity to ensure users navigate with ease. The success criteria for this project will be established once both the website and mobile application features meet the projects objectives as well as when the projects deadline is adhered to.</p> | | |
| <u>Client sign-off:</u> | | |
| AQ.Ebrahim | T.Hamdulay | A. Ajouhaar |
| | | D.Makatu |

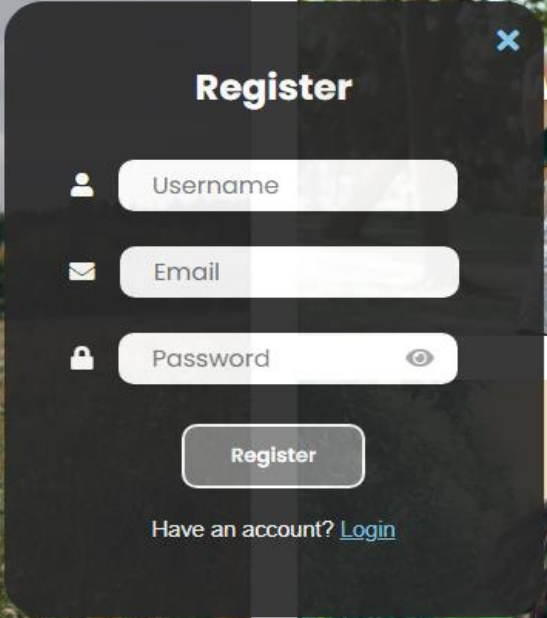
Gantt Chart

The following is a Gantt chart that the Boundless Charging project team utilised as a schedule processing tool that aided in visualising the breakdown of the project's deliverables into assigned tasks.

User Documentation of Website

Register Screen:

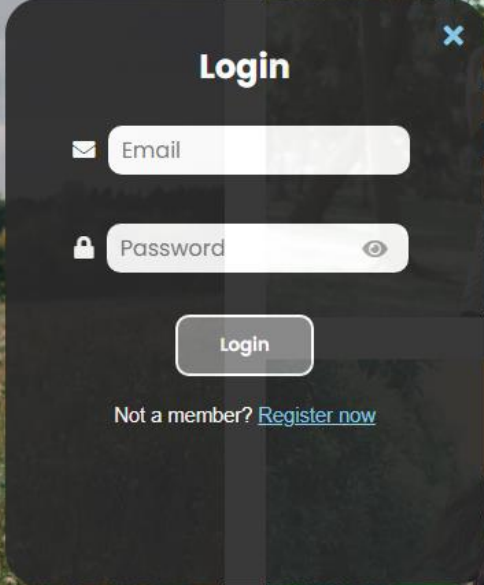
New users are required to register if they do not have an account.



The Register screen is a dark gray modal overlay with a close button (X) in the top right corner. It features three input fields: Username (with a person icon), Email (with an envelope icon), and Password (with a lock icon and a toggle eye icon). Below the fields is a Register button. At the bottom, it says "Have an account? [Login](#)". The background shows a collage of images with the text "Women" and "Kids".

Login Screen:

Existing users are required to enter their email and password to login.



The Login screen is a dark gray modal overlay with a close button (X) in the top right corner. It features two input fields: Email (with an envelope icon) and Password (with a lock icon and a toggle eye icon). Below the fields is a Login button. At the bottom, it says "Not a member? [Register now](#)". The background shows a collage of images with the text "Women" and "Kids".

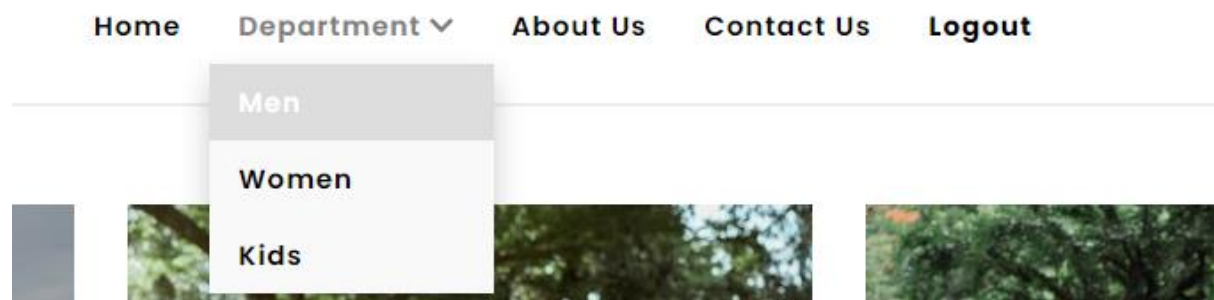
The navigation bar consists of:

Home, Department (Men's, Women's, Kid's), About Us and Contact Us.

Home Department ▼ About Us Contact Us Logout

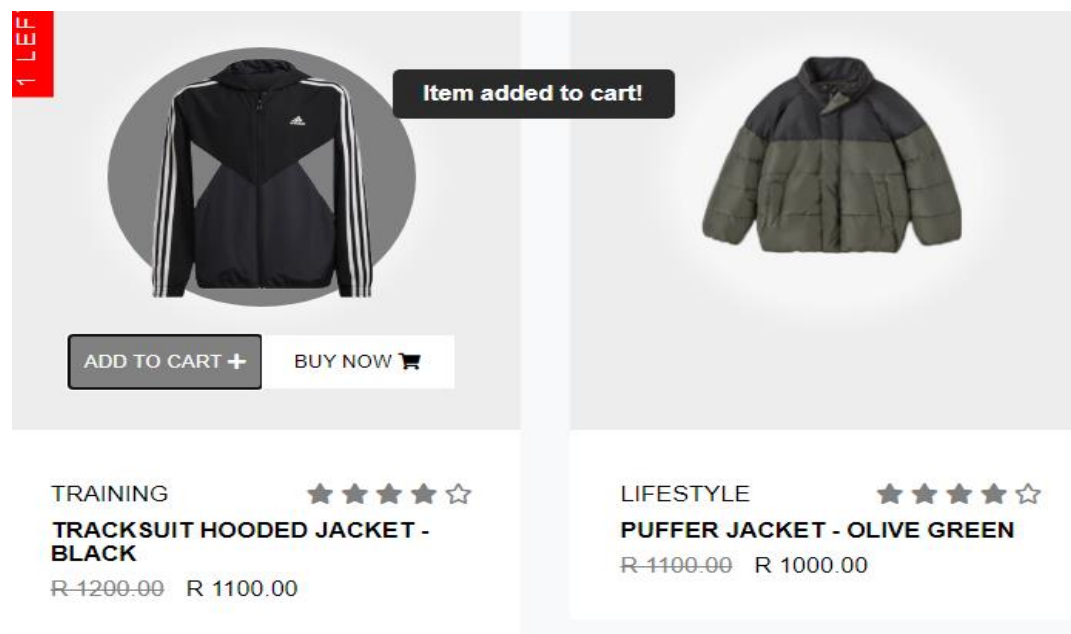
Navigating to various clothing departments:

Users can navigate to the different departments using the navigation bar.



Adding products to cart:

When a user clicks “Add to cart” a message appears which tells the user an item was added to their cart. The user can then view their selected item/s in the cart located in the top right corner.



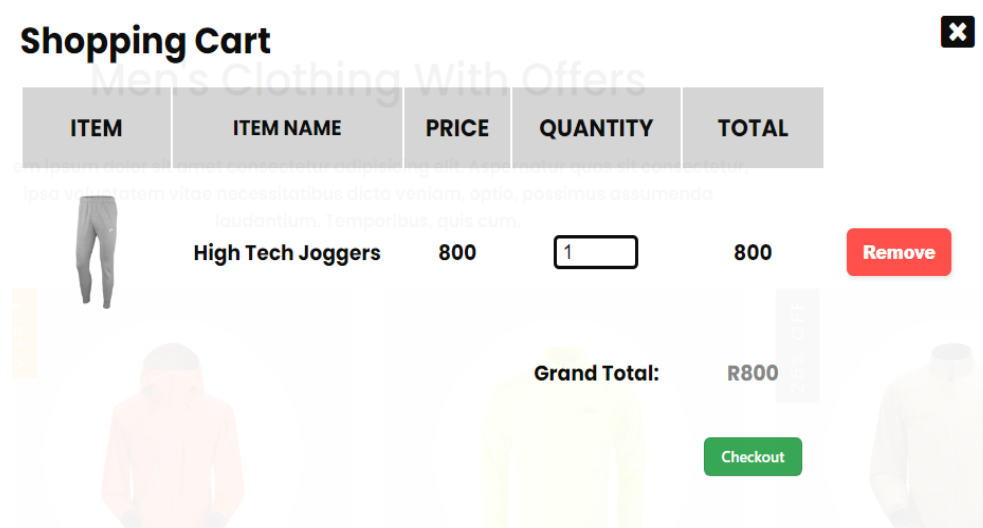
Alert on cart when product is added to cart:

After an item was added to the cart, the cart will display a red alert. The alert will disappear once the user opens the cart.



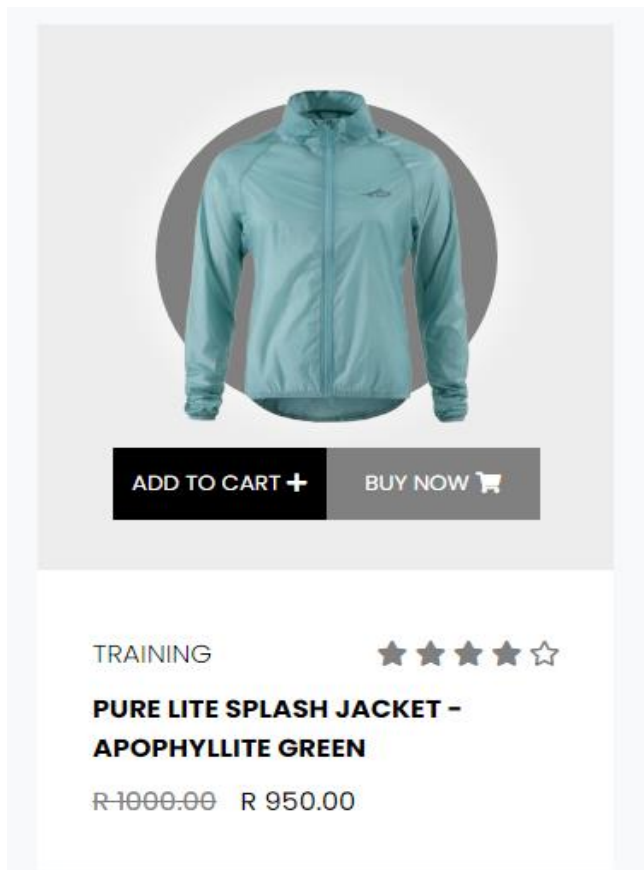
Shopping Cart:

Users can view their selected products in the shopping cart respectively. If the user is satisfied with the list of products the user can proceed to the checkout page. Note: a user will only be able to checkout if they are logged in if and there is at least one item in their cart.



Buying a single product:

If a user is only interested in buying one product, the user can click on the "Buy Now" button, which will direct the user to the checkout page. Note the user will only be directed to the checkout page if the user is **logged in**.



Checkout form:

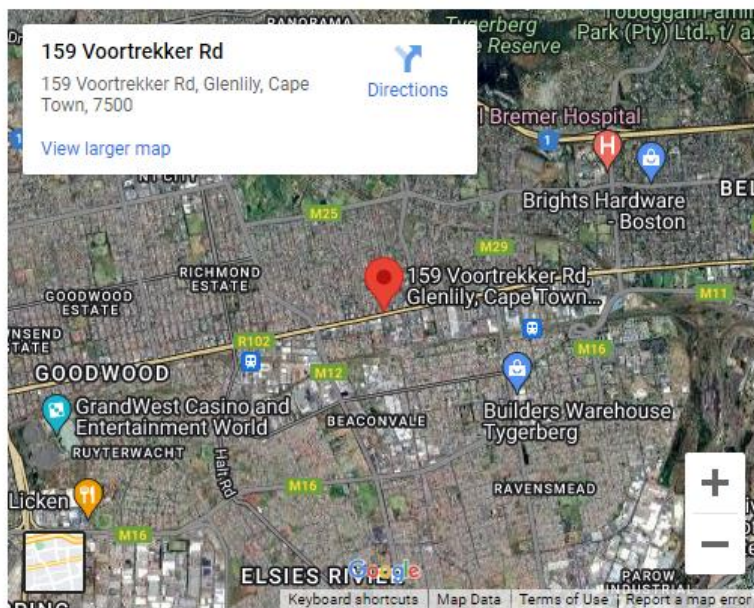
The Checkout form displays a payment summary indicating the amount the products costs as well as the amount including VAT.

Checkout

| Shipping Address | Payment | Payment Summary |
|--|---|---------------------------------|
| <p> Full Name</p> <input type="text" value="John James"/> | <p>Cardholder's Name</p> <input type="text" value="John May James"/> | <p>Sub-total: R800</p> |
| <p> Email</p> <input type="text" value="johnjames@gmail.com"/> | <p>Card Number</p> <input type="text" value="1111 2222 3333 4444"/> | <p>Shipping: Free</p> |
| <p> Billing Address</p> <input type="text" value="37 Arrow Street"/> | <p>Exp Date CVV</p> <div> <input type="text" value="09/2026"/> <input type="text" value="456"/> </div> | <p>Vat: R120</p> |
| <p> City Zip</p> <div> <input type="text" value="Cape"/> <input type="text" value="7784"/> </div> | <p>Accepted Cards</p> <div> </div> | <p>Grand Total: R920</p> |
| | | <p>Complete Payment</p> |

Contact us:

If a user wants to reach out to us, the user can navigate to the Contact Us page where the user can either use the google maps to locate our business or send us their queries by filling in the contact form.



Contact Us



About Us:

This page displays the team members involved in the implementation of this website.

Our Team



TANWEER HAMDULAY
CEO

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ratione perspicatis, error deleniti quaerat beatae doloribus incidunt excepturi. Fugit deleniti accusantium neque hic quidem voluptatibus cumque.



DAKALO MAKATU
Software Developer

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ratione perspicatis, error deleniti quaerat beatae doloribus incidunt excepturi. Fugit deleniti accusantium neque hic quidem voluptatibus cumque.



AALIYAH AJOUHAAR
Software Engineer

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ratione perspicatis, error deleniti quaerat beatae doloribus incidunt excepturi. Fugit deleniti accusantium neque hic quidem voluptatibus cumque.



ABDUL.Q.EBRAHIM
Business Analyst

Lorem ipsum dolor sit amet, consectetur adipiscing elit. Ratione perspicatis, error deleniti quaerat beatae doloribus incidunt excepturi. Fugit deleniti accusantium neque hic quidem voluptatibus cumque.

Subscribe section:

If the user is interested in receiving updates about our products, they can enter their name and email. Weekly updates will be sent to their emails

By Subscribing To Our Newsletter You Can Get 25% Off

Lorem ipsum dolor sit amet consectetur adipiscing elit.



Store Location

159 Voortrekker Rd,
Parow, 7500, South Africa

Phone:

060 102 0403

Office Location

Canas

Work Hours

08:30 AM - 5:30 PM
Daily

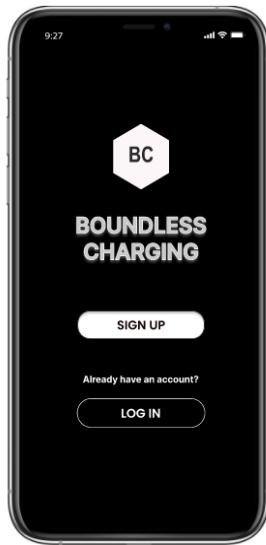
Email

Boundlesscharging@gmail.com

Social Media

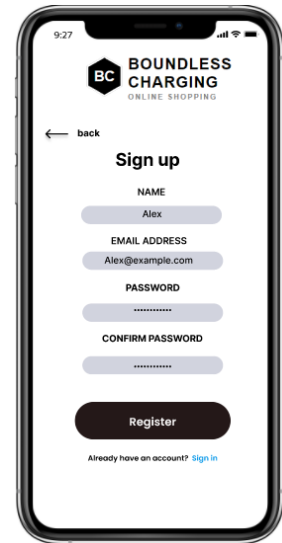
Facebook, Instagram,
Twitter, LinkedIn

User Documentation - Prototype



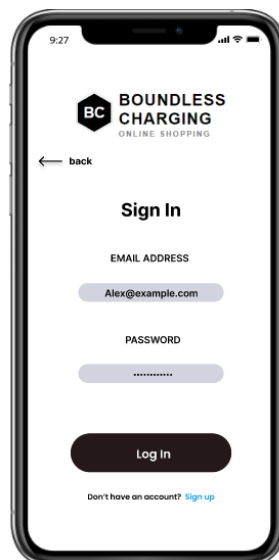
1. Sign-Up / Log-in

Users are presented with a sign-up or log-in button options when they open Boundless Charging's mobile application. If the user already has an existing account, they are instructed to log-in and if they are new to our platform, they sign-up.



2. Sign-Up

When the sign-up button is selected, new users are navigated to a sign-up page where they are required to add in their details in order to be registered onto the system.



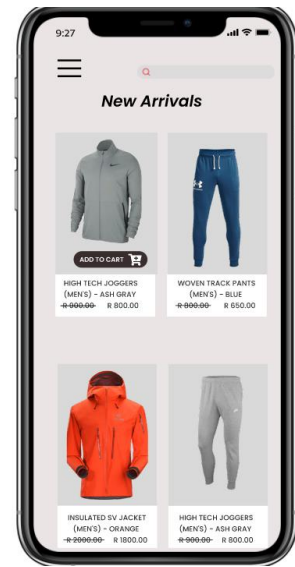
3. Sign-In

When the Log-in button is selected, existing users are navigated to a sign-in page where they are required to add in the required details in order to log into the mobile application.



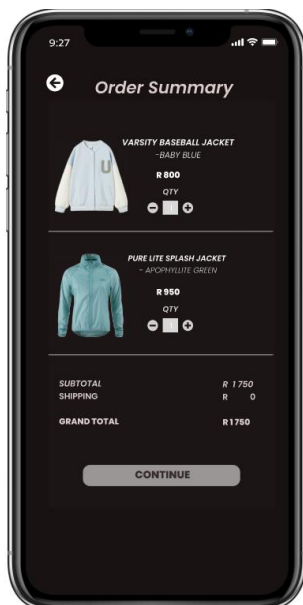
4. Home Page

After the sign-in and log-in in process users are navigated to the home page which showcases the various departments Boundless Charging has to offer.



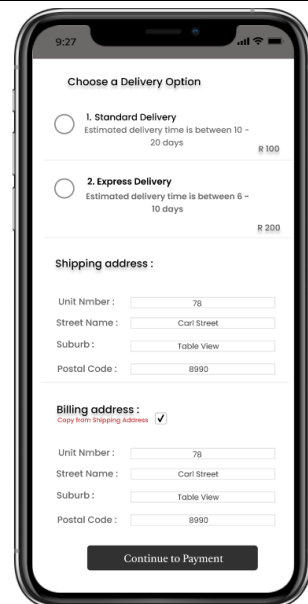
5. Departments

Users can browse between the four departments our online store has to offer, choose items and add them to their cart.



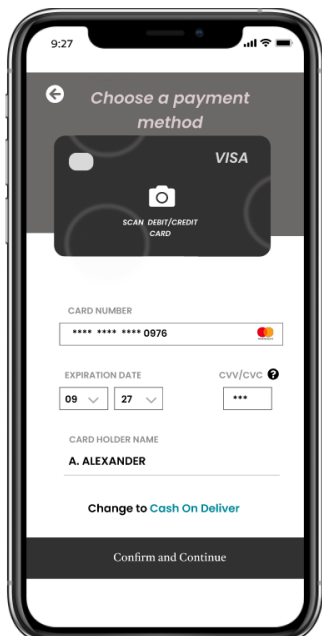
6. Order Summary

Once items are added to the cart users can view a detailed order summary of the items they are about to purchase.



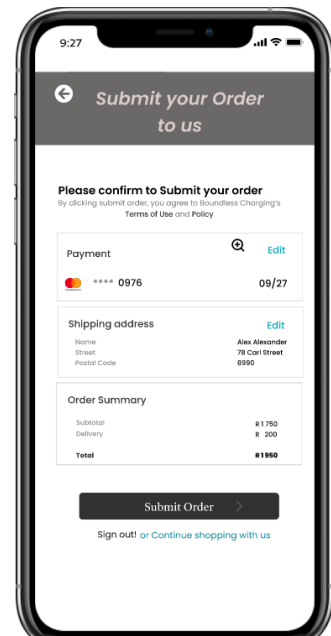
7. Delivery Details

The user then proceeds to the delivery details page where they are asked to choose between two delivery options as well as fill in their shipping and billing details.



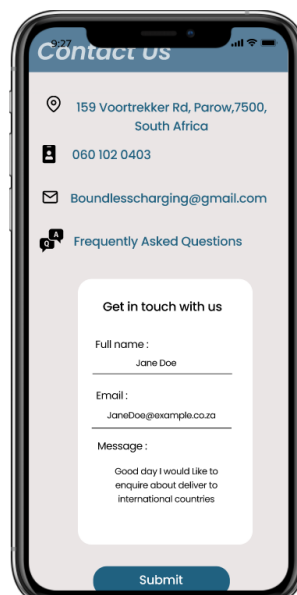
8. Payment

Once delivery details are filled and completed the user then continues to payment. Here the user chooses between our various payment options.



9. Submit Order

The final step of placing an order through our mobile application includes users being navigated to a submit page where they confirm their order with us.



8. Contact Us

Users have the option to get in touch with us if they have any queries or concerns as well as browse our frequently asked questions section which we have provided answers for.

Reference List

Oosthuizen, T. and Venter, R., 2018. *Project management in perspective*. 2nd ed. Cape Town: Oxford University Press.

Teamwork.com. 2022. *Project Management Methodologies - Everything You Need To Know*. [online] Available at: <<https://www.teamwork.com/project-management-guide/project-management-methodologies/>> [Accessed 24 June 2022].