Product Requirements Document << Product Name>>

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Division: Selling Platform

By Valued Utopia Team

Special thanks to Dumisani Mjojo & Rossel Retolla;

For their contributions to the TS Documents.

document/s outside those terms, please contact aaron-tot@utopiatech.io immediately.

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Version Control

The table below highlights modifications/updates made to the document. This includes traceability on who initiated the change and the status of objects within the document.

Version	Date	Comments, Changes, Status	Authors, Contributors, Reviewers
0.0.1	11/ Jul/2020	Initial Document Issue	Dumisani Mjojo & Rossel Retolla
0.0.2	13/Jul/2020	Joining of two TS Docs, Adjusting doc structure and minor changes to content	Aaron Tot
0.0.3	19/Jul/2020	Reorganised the document, Formatting	Magendran

		changes,Revised use cases	
0.0.4	20/jul/2020	GUI Design Style added, Added Rindra and Magendran as decision makers and contact points	Aaron Tot
0.0.5	23/jul/2020	General requirements update	Aaron Tot

Contact Points & Decision Makers

Name	Position	Capacity	Email	Linkedin
				https://www.linked
Aaron Tot	Director/CEO	Full	aaron-tot@utopiatech.io	in.com/in/aaron-tot
Rindra	General Manager	Full	rindrasoa-andrianantoanina@utopiatech.io	
	Assistant General			
Magendran	Manager	Full	magendran-m@utopiatech.io	

Glossary of Terms

Actor	Description	
Buyers/Customer	Platform user. Finds products for sale.	
Sellers	Platform user. Uploads products for sale.	
Administrator	a person who is responsible for the upkeep, configuration, and reliable operation of computer systems; especially multi-user computers, such as servers	
3rd Party Authentication Agent	Authentication systems are the protective barrier of any software. It makes sure that right people enter the system and access the right information.	
3rd Party Financial Service Agent	interaction over a network between the platform and relevant financial	
Fulfilment Partner	In context of this system, Order fulfilment is the process of receiving goods, then processing and delivering orders to customers. The process starts with a customer placing an order and ends once they receive it. However, if the buyer wants to return a product, order fulfilment manages the return	

transaction as well.

Overview

Our selling platform will be an important asset to businesses of all sizes and a safe and convenient place for our buyers to have their shopping experience.

The first phase will be a platform setup similar to that of amazon's buyer seller platform. Aka One listing of each product with many sellers for the item. Which will serve the more serious businesses as the sellers and the newly traditional online shoppers as buyers.

There will be another two phases. One that introduces an ebay style where the general public can list their items for bid or buy now. And also an alibaba/aliexpress style where mass distributors, wholesalers and manufacturers mainly from china and sell their products from.

Business advantage when using our Platform

Advantages to both parties

- Effective platform where it is user friendly. easy to navigate will increase the sales of the business and will develop a more comprehensive transaction between the customer and the owner.
- Users can buy and sell anything legal across the globe.
- Our own product valuer for sellers items for the buyers and sellers to make informed decisions.

Advantages to sellers

<<To be filled>>

Advantages to buyers

<<To be filled>>

Features overview

Selling Platform for Sellers

Supported Sellers

- Wholesale sellers
- Manufacturers
- Distributors
- Retailers
- Personal or Individual sellers
- Social media sellers through Social media API integrations

Features offered

- Social media business page auto setup for sellers.
- Many plugins and APIs, RSS feeds, wordpress, zencart, shopping carts.
- Bulk adding product plugins (for wordpress etc) (Excel and form on website)
- Inventory management, bulk product upload from major platforms etc.
- Utopia's seller acquisitions team will support when onboarding the new sellers by providing(Paid or Free) services for migration, setting up the product listing etc.,
- Host sale or promotions to increase revenue

Buyer's Platform

Features offered

- Easy login using Social media accounts, legacy model of Login also supported
- Multiple options to buy a product Buy now, Bid/Auction or pick based on best offers.
- Users Similar to Ebay.

- Buyer security (End users purchases are protected), Options to hold/wait for the payment until
 product gets delivered.
- High marketing budget for the platform/company

Payment modes

- 1. Cryptocurrency
- 2. Paypal
- 3. Card Payments
- 4. Strip zip pay
- 5. Afterpay.

General Requirements

Our Platform will be a Cloud Based application, that can be utilized by sellers and buyers across various platform and devices

We have purchased a React JS theme and functions package from: https://themeforest.net/item/multikart-responsive-react-ecommerce-template/23067773

Using a template and basic pre done functions we will save tremendous time on the MVP development.

Supported Platforms

- PC running with Windows, MAC, Ubuntu(Any OS that supports access to website using a web browser)
- Browsers:Chrome,Edge,Firefox,Safari
- Mobile Platforms:iOS & Android Apps(Tabs and Mobile devices)

System Functionalities

Our e-Commerce platform can be utilized by the business users or end customers to carry out the below mentioned functionalities when they buy or sell items in our platform.

Buyers	Sellers	Others
Shop ProductsUser profileManage and Track orders	Create storefrontProduct listingsProduct detailingHandle customer	Third Party advertisementsOther platform integrations

- Shop by category
- Access to Sale or offers from Sellers
- Wishlist
- Gifting

- service, shipping,
- Setup Payment modes
- Setup Offers or Sales Campaigns
- Reports and Statistics
- Review feedbacks
- Utilizing our system features through our dedicated APIs
- Logistics Partners integrations

Functional Requirements

Name	Buyer Module	
Requirement ID	UTBUY	
Description	This requirement covers the list of system features or requirements need for a buyers to user our system for successful shopping of products	
Actors/Users	Buyers, End customers	
Ref Artefacts	Find Product, System classes	

Category View(CV)		Ref Artefacts: Find Product, System classes
Req ID	Name	Description
UTBUY_CV_1	Search Products	Allow the user to search for products by name, product code, serial number, UPC, etc.
UTBUY_CV_2	Sorting of Products	Allow the user to sort the order of products listed by any attribute (price, latest, popular, etc.)
UTBUY_CV_3	Product Availability	Allow users to view availability and inventory dates of all products.
UTBUY_CV_4	View Product Images	Allow users to view different images of a product
UTBUY_CV_5	View product details and Specifications	Allow a user to view supporting documentation on any product (e.g. fact

		sheets, user manuals, warranty, returns policy, etc.).
UTBUY_CV_6	Shipping Instructions	Allow custom messages and instructions for shipping and handling.
UTBUY_CV_7	Filter product search	Allow the user to Filter the order of products listed by any attribute (price, latest, popular, etc.)
UTBUY_CV_8	Choose seller for Purchase	User to select which seller they will purchase the product from.
UTBUY_CV_9	View reviews of the Product	User to have access to other user reviews of the products as well as the info on each seller such as sell history, seller ratings etc.

Shopping cart & Checkout (SC)		Ref Artefacts: Add to Shopping Cart (Buyer), Make Purchase (Buyer), System Classes
Req ID	Name	Description
UTBUY_SC_1	Edit Shopping Cart	Allow a user to add or remove products to their shopping cart.
UTBUY_SC_2	Retaining items in shopping cart	Allow the user to save their shopping cart for later purchase.
UTBUY_SC_3	Change shipping address	Allow the user to specify a shipping address, other than that on file.
UTBUY_SC_4	Select pickup location	Allow a user to specify a warehouse (drop shipping) address for pickup, closest to the user.
UTBUY_SC_5	Generating Quote	Allow a user to print the shopping cart as a quote, or email as a quote.
UTBUY_SC_6	Saving Shipping address	Allow a user to save a shipping address to their profile.
UTBUY_SC_13	Save/Select Billing address	Allow a user to select/save a billing address from/to profile.

UTBUY_SC_7	Choose Payment method	Allow the user to select their preferred payment option for a purchase.
UTBUY_SC_8	Add new payment mode	Allow users to enter new payment method details. Such as bank card details
UTBUY_SC_9	Choose Payment method	Allow users to select existing payment method details. Such as bank card details
UTBUY_SC_10	Avail Offers	Allow users to enter coupons
UTBUY_SC_11	One Click checkout	Allow the user to use the "1 Click checkout" button. This will use their previously entered prefered payment method, shipping address and details on file to complete the entire purchase of that item
UTBUY_SC_12	Shipping preferences	Allow the selection of shipping options, express, standard etc

Feedback Manager(FM)		Ref Artefacts: Add to Shopping Cart (Buyer), Make Purchase (Buyer), System Classes
Req ID	Name	Description
UTBUY_FM_1	Product & Seller Feedback	The system shall allow a user to review and create feedback on a product and the seller. Only for that purchased from that seller.
UTBUY_FM_2	Contact Seller	The system shall allow a user to initiate contact via direct message to a seller.
UTBUY_FM_3	Add Product Image	The system shall allow a user to add the image of the received product along with review.
UTBUY_FM_4	Share the product review	The system shall allow the user to share his review in Social media platforms, with a custom message

Name	Seller Module
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Requirement ID	UTSEL	
Description	This requirement covers the list of system features or requirements needed for a seller to use our system for successful selling of products.	
Actors/Users	Sellers	
Ref Artefacts	Find Product, System classes	

Store Manager(SM)		Ref Artefacts: System classes
Req ID	Name	Description
UTSEL_SM_1	Storefront Creation	The system shall allow a user to create a storefront.
UTSEL_SM_2	Product listing by category	The system shall allow a user to create/use categories/subcategories for their storefront.
UTSEL_SM_3	Add users	The system shall allow a user to add other store users with varying user rights and privileges.
UTSEL_SM_4	Financial Settings	The system shall allow the user to select their base currency for their listed products.
UTSEL_SM_5	Store Policies	The system shall allow the user to define procedures and policies (these should not supersede the platform policies).
UTSEL_SM_6	Report builder	The system shall allow the user to create reports (activity, sales, abandoned carts, etc.)
UTSEL_SM_7	Benchmarking Prices	The system shall allow users to benchmark prices for specific products against other stores and established e-commerce sites.

Campaign Manager(CM)		Ref Artefacts: System Classes
Req ID	Name	Description
UTSEL_CM_1	Store Overview Page	The system shall allow a user to create Blog Content on their company page that's on our platform.

UTSEL_CM_2	Social media integrations	The system shall allow the user to 'share' content (Such as price, images, stock levels etc) or promotions via email, social media, shortcode, link or RSS.
UTSEL_CM_3	Subscription for Store updates	The system shall allow push promotions for 'opt-in' subscribers of the store.
UTSEL_CM_4	Product Promotions	Allow users to create promotions on their products individually or in bulk editing.
UTSEL_CM_5	Lead generation	Collect lead details and store them in the customer DB
UTSEL_CM_6	Campaign creation	The system shall allow email marketing campaigns to be sent to store customers and 'subscribers'. These will be sent as if its coming directly from Utopia Tech
UTSEL_CM_7	Feedback reviews	Allow users to reply to buyer feedback, ratings and messages.

Product Manager(PM)		Ref Artefacts: System Classes
Req ID	Name	Description
UTSEL_PM_1	Promo Code Creation	The system shall allow the user to create promotion codes for any or specific listed products.
UTSEL_PM_2	Discounted Prices	The system shall allow the user to create volume discount promotions for their listed products.
UTSEL_PM_3	Marketing contents	The system shall allow the user to create marketing content and media for a specific product or category.
UTSEL_PM_4	Stock Management	The system shall allow the user to update stock levels.
UTSEL_PM_5	Stock Management	The system shall the user to update product and shipping prices.
UTSEL_PM_6	Serviced areas	The system shall allow users to restrict orders to specific geographical locations.

UTSEL_PM_7	Stock Management	Allow users to set/update all product information singly or in bulk. (Images, descriptions, prices, stock levels etc)
UTSEL_PM_8	Product Listings	Allow bulk import and export products. Import from popular e-commerce tools/platforms such as woo-commerce, zen cart. Also from excel file and any other popular importing methods
UTSEL_PM_9	Product Listings	Allow communication to other stores on other platforms such as facebook stores via automatic API usage. This can be used for stock levels, pricing, description etc

Customer Management(CMM)		Ref Artefacts: System Classes
Req ID	Name	Description
UTSEL_CMM_1	Customer DB/Reports	The system shall allow the seller to search 'his/her' customer database.
UTSEL_CMM_2	Customer DB/Reports	The system shall allow the seller to analyse 'his/her' customer database and filter those customers who bought a specific item that needs to be recalled.
UTSEL_CMM_3	Return Orders	The system shall allow the seller to accept returns, for either, 'store credit' or cash reimbursement.
UTSEL_CMM_4	Customer Communication	Allow sellers to message their customers.
UTSEL_CMM_5	Customer Privacy	Shield selected information from the sellers such as buyers card details, phone number etc.

Name	Backend System	
Requirement ID	UTBE	
Description	This requirement covers the list of system features or requirements needed for a seller to use our system for successful selling of	

	products.
Actors/Users	Utopia Tech's Internal Product & Engineering team stakeholders
Ref Artefacts	System clases

User Management(UM)		Ref Artefacts: System clases
Req ID	Name	Description
UTBE_UM_1	Buyer Profile	The system shall allow a user to create an account using email or a trusted 3rd party user authentication service. However they must provide an email address and sellers must also provide a phone number.
UTBE_UM_2	Seller Profile	The system shall allow a user to register as an organisation (storefront).
UTBE_UM_3	Seller Profile	The system shall allow a user to register as an organisation (buying co-operative).
UTBE_UM_4	Seller Profile	The user shall allow organisational accounts the ability to create other users and grant/revoke access rights and privileges.
UTBE_UM_5	Buyer Profile	The system shall allow the user the ability to create multiple billing and shipping addresses.
UTBE_UM_6	Buyer Profile	The system shall allow an authorised user the ability to create multiple payment methods.

System Message & Notifications (SMN)		Ref Artefacts: System clases
Req ID Name		Description
UTBE_SMN_1	Buyer Profile & Seller Profile	The system shall send the user a message every time they reset their password.
UTBE_SMN_2	Buyer Profile & Seller Profile	The system shall send the user a welcome message when they create an account.
UTBE_SMN_3	Buyer Profile & Seller Profile	The system shall send the user a message if their 'save for later' or 'bookmark' items are

		below a threshold inventory level.
UTBE_SMN_4	Buyer Profile & Seller Profile	The system shall send the user a message if 'save for later' or 'bookmark' items are discontinued / removed / recalled by the seller.
UTBE_SMN_5	Buyer Profile & Seller Profile	The system shall send the user a message if they forget their password, and opt to reset.
UTBE_SMN_6	Buyer Profile & Seller Profile	The system shall send the user a message of any confirmed orders.
UTBE_SMN_7	Buyer Profile & Seller Profile	The system shall send the user a message when their shipment reaches a specific milestone.
UTBE_SMN_8	Buyer Profile & Seller Profile	Send users an email confirmation email.
UTBE_SMN_9	Buyer Profile & Seller Profile	Send the user a phone number confirmation sms.
UTBE_SMN_10	Buyer Profile & Seller Profile	Send user message when policies change
UTBE_SMN_11	Buyer Profile	Send a user message when there are promotions, if they are opted in.

Recommendation Engine (RE)		Ref Artefacts: System clases
Req ID	Name	Description
UTBE_RE_1	User Recommendation	The system shall provide 'Upsell' offers based on user 'bookmarks', 'buy later' shopping items, or shopping cart items as well as previously viewed items
UTBE_RE_2	User Recommendation	The system shall provide 'Cross-sell' offers based on user 'bookmarks', 'buy later' shopping items, or shopping cart items.

Non - Functional Requirements

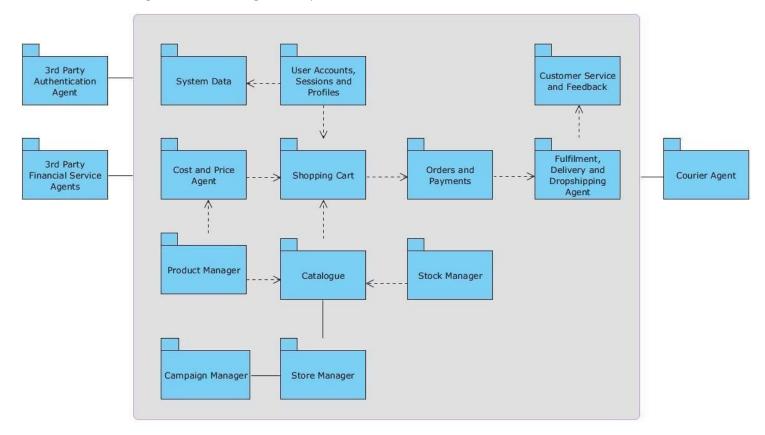
Non Functional(NF)	Ref Artefacts: System clases
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document/s outside those terms, please contact aaron-tot@utopiatech.io immediately.

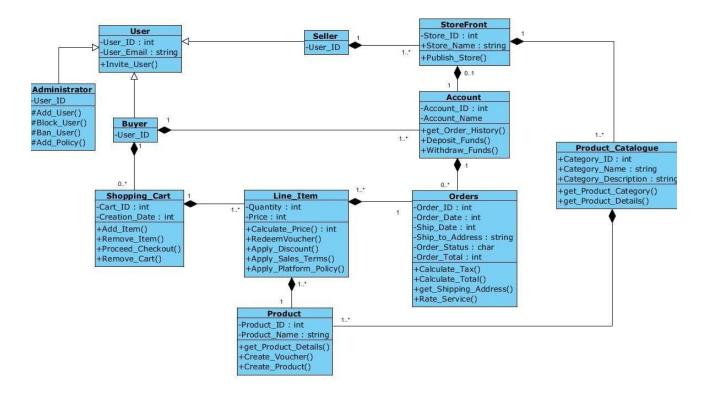
Req ID	Name	Description
UTNF_1		Support multiple currencies and languages
UTNF_2		99.9% Uptime
UTNF_3		Security Standards for Seller and Buyers monetary information
UTNF_4		Legal and Compliance adherence to the specific country where used.
UTNF_5		Support 1Million active user load

Core System Components

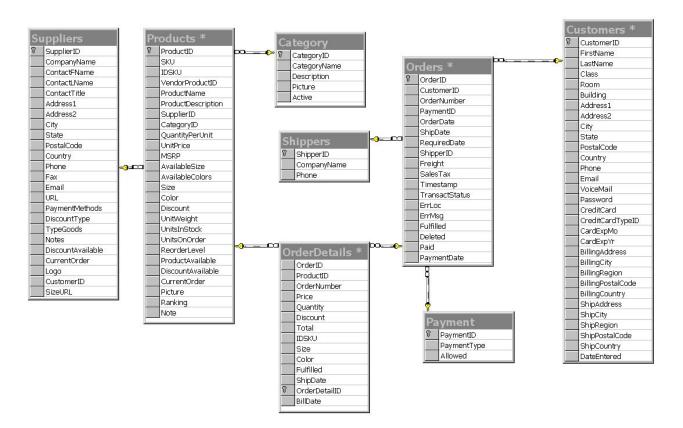
These ERDs and diagrams are REDUNDANT. We will be creating ERDs on the fly to reduce the initial drag time of starting development.



System Classes



DB Structure



Use Cases

Name	New User Registration & Login	
Description	The system will allow a new user to use our platform by registration and login to the system.	
Actors/Users	New Buyer and Seller user	
Trigger	When a new user wants to use our Platform to purchase products	
Preconditions	 User has internet access to open the website User has our App installed in Mobile devices 	
Postconditions	 User successfully registered to our platform User will be allowed to login using registered credentials User successfully creates his profile 	
Flow	 User selects "Sign up" from login page User fills up the Buyer's registration form and submits the details User confirms his identity using the confirmation mail sent to his 	

	registered ID Upon clicking the confirmation link in mail, the system will prompt to enter Login credentials created during registration. Entering the Login credentials will take the user to home page or Landing page	
Alternate Flows	User Choose to login using "Facebook", "Google" accountsLogin using valid credentials by registered user	
Exceptions	 Seller users are not covered in this flow Ordering and Profile management are not covered 	
System Response	 → System will perform the following activities as per users action ◆ When clicking Sign-up, system displays Registration page for buyer or user based on the selection ◆ When Login, System checks user input against user database or authenticates using 3rd party service. Directs the user to Homepage 	

Name	Shopping for a Product	
Description	A registered user will be allowed to login and shop for products from our platform	
Actors/Users	Buyer	
Trigger	When a new user wants to use our Platform to purchase products	
Preconditions	 User has internet access to open the website User has our App installed in Mobile devices User has valid credentials and profile setup Products listed and available in our system for shopping 	
Postconditions	 User successfully place an order Seller successfully gets a new order Notifications to Buyer and seller on the new order placed 	
Flow	 □ User search for product he wish to purchase □ Selects the product from the list of results □ User view the product description and details □ Add the product to shopping cart □ Checkout the order by filling in shipping and Payment details □ Confirm the Order 	
Alternate Flows	 User can order a product from browsing through categories User can order from the top selling items shown on the homepage User can choose to re-order the past orders Selected Item can be purchased using "One-Click checkout" 	

Exceptions	 Shipping management by seller Offers and Coupon application for discounts Any other special cases 		
System Response	 → System will perform the following activities as per users action ♦ When Login, System checks user input against user database or authenticates using 3rd party service. Directs the user to Homepage ♦ When searching, the system queries the database to retrieve product details. ♦ When selecting a product, the system presents product details like Price, Features, Availability, Seller info to the User. ♦ Upon selecting "Add to cart", the order will be moved to the cart for checkout ♦ System displays final Price of the product and Payment options ♦ Upon payment confirmation, place the order and update the Backend DB accordingly ♦ Sellers Stock details updated ♦ Once order is successful redirect to "My Orders" page for the user ♦ Order notification to Seller and Buyer 		

User Stories

Ref No	User Stories	Acceptance Criteria
UTUS_1	As a buyer I need to login to the application to access my landing page or home page.	 User should get registered to the application as buyer User should successfully login to the application using Valid credentials Users should access their homepage or Landing page. User profile should get updated to the DB tables
UTUS_2	As a seller I need to login to the application to access my landing page or home page.	 User should get registered to the application as seller User should successfully login to the application using Valid credentials Users should access their homepage or Landing page. User profile should get updated to the DB tables
UTUS_3	As a buyer i need to create my profile using "My profile" page so that i can update my demographic,	 User should be able to successfully create his profile page User should be able to edit and save

	payment, and other details	 profile details User should be able to add shipping address User should be able to edit his payment preference
UTUS_4	As a buyer i need to purchase an item by searching the item name so that i can successfully place the order	 The system should return the searched item as list User should be able to open an item from list and choose his preference(Like Size, Qty, Color etc.,) Selected item should get added to Cart successfully User should successfully checkout the order Use should be able to make the payment successfully New order should get listed in the Order section of the user profile
UTUS_5	As a Seller i need to create a storefront so that i can showcase my products for sale	 Seller should be able to create a storefront or store page Seller should be able to display products for sale Seller should be able to configure the store page
UTUS_6	As a seller i need to create product listing for the items that i sell so that customers can shop items from me	 Product listing should get created for the seller's products Product listed by seller should appear in categories, Search results
UTUS_7	As a seller i need to edit the Product details list for a product that i list for selling so that i can manage the product details	 Product details should get updated as per changes made Product's changed details should get reflected in all the places of the application
UTUS_8	As a seller i need to view the placed orders by the buyer so that i can process the shipping for delivery	 Order should be displayed for the Seller to process shipping Past orders should be retrievable Seller should receive an email regarding the new order placed
UTUS_9	As a seller i need to view reports of my sales, revenue so that i can understand my performance	 Seller should be able to create reports from his dashboard Reports generated should be visualised as graphs wherever applicable

UTUS_10	As a Seller i need to have a Dashboard to view my overview consolidated details for Reports, Sales, Orders, Revenue generated, Product list	 The Dashboard Should have the Overview of the Reports, Sales, Orders, Revenue generated and Product lists when opening the Dashboard. When opening the specific item in the dashboard it should open the details in that item's specific page. Eg. Opening Reports should open the reports page from Dashboard
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Technical Requirements

The application is a B2B platform like ebay, shopify, alibaba which sells platforms to businesses to make their business successful. The platform is selling eCommerce systems to the business.

The platform will include features like CMS, eCommerce, Social Manager, SEO, Marketing management and so on.

Tech Stack

We should develop web applications and iOS, Android mobile applications as well and should go with hybrid development technologies like phonegap and so on.

- Back-end: Ruby on Rails / Laravel Should support RESTful APIs for third-party can consume
- Mobile apps: Ionic/React Native for hybrid development
- Front-end: React/Angular consuming RESTful APIs
- Database: PostgreSQL, MangoDB
- NoSQL database for performance
- Source code version control : git(github/bitbucket/gitlab)
- Continuous Integration: CircleCI, TravisCI, ...
- Error reporting : Rollbar, Airbrake ...
- Real-time communication : WebSocket

- Notification System: iOS/Android Push notification, Email/SMS notification, web push notification
- Hosting Service: AWS/Heroku/TBD

Development

- Should start with MVP, including minimum features of platform and develop additional modules and systems based on customer requirements.
- Should confirm what should be in MVP and what to develop
- Basic database diagram, project architecture, design patterns, coding style, ...
- Complete UI/UX wirefram

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UI/UX WIREFRAMES

Design Style:

- Clean
- Simple app feel
- Light and friendly
- Professional

Dynamic Wireframes can be accessed from this Link. password: Utopiatechwire1

Common Pages Home Page Signup Login Buyer module **Product List page** Product details page Category and Filter products page Cart **Order Lists** Check out E-Mail Template Seller module Seller's Dashboard Seller's Profile page Product listing page Sales/Order Details Payment management

Reports