



"THE GENESIS!"

NAME OF THE PRODUCT??

1. Project manager

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2. Tester

Khanyisa Kamba (221711481)

3. Front end developer

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4. System Designer/ Administrator

Billy Mokoena (221839593)

5. Back End developer

Luxolo Mkhathazo (220435898)

****Take note that this is part of the individuals research you are encourage to not use the online research but also surveys or interviews (shop owners & customers), the team members will then brainstorm their findings which will lead to an intergration of the research from the indivuals and also in forming a roadmap later a draft of a prototype****

Plan for Assigning Individual Research Tasks

Based on the project vision and team roles, here's a focused research plan to outline key features and guide prototype development, but first let us go back to the product vision will helps in what should the research be about moving forward

Moore's Vision Structure:

Vision Statement: "To create a fair and transparent registration system for spaza shops in South Africa, empowering local entrepreneurs while ensuring quality and compliance for all customers."

Moore's Vision Template:

For: The South African government, local entrepreneurs, and consumers. Who: Want a regulated, transparent, and fair system for spaza shop ownership. The: Spaza Shop Registration System. Is a: Digital platform that streamlines shop registration, verification, and compliance monitoring. That: Ensures fair ownership distribution, prevents food safety violations, and improves trust between shop owners and customers. Unlike: The current unregulated system, which allows unchecked foreign ownership and lacks consumer protection. Our product: Provides government oversight, transparency, and a platform for customer feedback and issue reporting.

TESTER RESEARCH FOCUS: INTRO RESEARCH

****The key focuses the tester will focus on and what responsibility may be expected from the tester on developing stages**

****HINT: leading to forming an idea when brainstorming that also leads to the prototype ****

1. Current System Flaws? Meaning

- Brief research summary of the existing unregulated system in South Africa (base it to the project idea).
- Investigate their origin, growth, and socio-economic role in local communities the good and bad.
- Research current challenges (e.g., informal operations, foreign ownership disputes).
 - Why does unchecked foreign ownership occur? And why foreign ownership dominates.
 - What is the statics or root cause problem?
 - What gaps exist in consumer protection (e.g., food safety violations)?
 - Is there counterfeit products? What are effects of them?

2. Regulatory Requirements

- Summary of SA's business registration laws.
- Research SA's goals for formalizing informal businesses.
- What is food safety regulations and (simplify or aim it to the project idea).
- What is current system of inspecting food safety? Can it be changed for the better?

3. Stakeholder Needs

- Local Entrepreneurs: Summary study pain points (e.g., registration complexity, compliance costs).
- Government Requirements: Summary Research SA's goals for formalizing informal businesses
- Consumer Concerns: Summaries explore trust issues (e.g., food safety, counterfeit products).

- How can I validate **the** core features like registration forms, document uploads, public directories, and feedback modules
- As a tester how can I verify that the planning, developing of the software prototype if it meets user needs (e.g., test registration form usability, validate admin approval workflows, ensure feedback forms are functional).
- As a tester how can then ensure the prototype includes mock compliance checks (e.g., validating ID formats, flagging expired licenses) and adheres to simplified regulatory workflows.

Highly encourage and allowed to add your own key points on your research

SYSTEM DESIGN / ADMINISTRATOR RESEARCH

FOCUS:

1.Key Research Questions:

- What are the core goals of the system? (e.g., fairness, transparency, compliance).
- How does the system empower local entrepreneurs and consumers?
- What legal and compliance requirements must the system follow?
- What specific problems does it solve compared to the current unregulated system?
- Can we mimic the existing databases into our usability, or it will be from the begging and why

2.Target Users & Stakeholder

- Firstly, how can the system be made accessible to both urban and rural shop owners?
- What are user personas and how will it help having a journey blueprint to guide intuitive & user-centric design.
- Who are the main users of the system, and what are their needs? (e.g., shop owners, government officials, consumers)
 - Local Entrepreneurs, Government Admins, Consumers.
- What kind of support will be available for shop owners who need help using the system?
- Summary of how users will register their shops on the platform. (Step-by-step process).

3.System design

- What are the core system functionalities, and how should they be structured? Define key features such as user registration, shop verification, compliance tracking, and reporting tools and decide on user roles (e.g., shop owners, government officials, consumers)
- How will the navigation be structured to ensure an intuitive user journey? Identify navigation bars, menus, and logical step-by-step workflows

- How can the system ensure accessibility and usability for diverse users? Determine the literacy level, language preferences, and device availability of shop owners. How to ensure the UI follows best practices for simplicity and responsiveness.
- What is the best technology stack for the system based on accessibility and scalability? Considering the database options, cloud storage, and security measures.
- How will the user interface (UI) and user experience (UX) be designed for ease of use? Identify how to make the system intuitive for non-tech-savvy shop owners.
- What type of authentication and security measures will be used for verification? Determine how to verify shop owners' identities (e.g., ID uploads, biometric verification, business registration documents). Will there be a plan for data encryption and compliance with privacy laws.
- What are the expected system limitations, and how can they be addressed? You can consider network issues, device compatibility, and offline functionality. A summary Plan for system updates and scalability as more users join.
- Research best practices in responsive design, colour contrast, readability, and navigation.

Highly encourage and allowed to add your own key points on your research

FRONT-END DEVELOPER RESEARCH FOCUS:

****The two developers must discuss on how and which programming languages to use which correspond****

KEY QUESTIONS:

- Define primary users (shop owners, government officials, consumers).
- Research current registration systems to avoid repeating their mistakes.
And Identify features that can be improved or innovated.

- Define screens for shop owners, government officials, and consumers.
- Who are the primary users of the system, and what are their needs? Identify the user personas (shop owners, government officials, consumers). Consider factors such as digital literacy, device preference, etc

- How many distinct interfaces need to be designed, and how will they be structured?
- How will data be displayed and managed in the user interface?
- What are the key user roles, and how will their interfaces differ?
- What are the key important summary information should be noted and include on the programming?
- Plan for dashboard layouts, data entry forms, and feedback mechanisms.
Identify role-based dashboards and necessary permissions.

- What front-end technologies and frameworks will be best suited for scalability?
- Can the interface guide users through the registration process efficiently? Plan for progress indicators, tooltips, and interactive guides.
Also considers pre-filled forms or AI assistance to reduce friction.

- What security measures must be built into the front end?
- Can the navigation be structured to ensure an intuitive user journey? Identify navigation bars, menus, and logical step-by-step workflows.?

- Can the system adapt to different screen sizes and devices? Can the software Ensure responsive design principles for desktop, tablet, and mobile devices.?
- Research best practices in responsive design, colour contrast, readability, and navigation.

- Research how can the front-end be optimized for performance and fast loading speeds? The lazy loading, caching strategies, and optimized asset delivery (images, fonts, CSS, and JS files if they're the languages that will be used).
- What are the most common front-end issues in existing spaza shop registration systems (if any)?
- How can the product of this project have Digital Verification System, Multi-User Support, Mobile-Optimized & Accessible, Mobile-Optimized & Accessible, AI & Automation Features, Compliance Monitoring & Alert Compliance Monitoring & Alerts, Customer & Community Engagement, Offline Mode Support, have a mimic Government Databases ?
- *The final research again will be completed after you received feedback and had a brainstorming session from the team which enables you to move deeper to what whole project idea is focusing on and future prototyping *

Highly encourage and allowed to add your own key points on your research

BACK-END DEVELOPER RESEARCH FOCUS

****The two developers must discuss on how and which programming languages to use which correspond****

- Summary of what is the back-end competitor analysis.
- Will the government officials, shop owners, and customers require distinct interfaces (e.g., dashboards vs. public forms).?
e.g. Role-Based Dashboards:
Government: Compliance overviews, analytics.
Shop Owners: Registration status, violation alerts, feedback.
Customers: Shop directory, complaint submission.
- What's the minimal viable set of dashboard metrics for each user role?
- Summary introduction of the automated compliance checks (e.g., citizenship verification, permit validation).
- The software about to be created how many interfaces will use it?
- Where will it be use it? How will they be accessed?
- From your background inform what tools can be used for the interfaces for this project?
- Will it have Localization in terms of the support for multilingual interfaces (e.g., Zulu, Xhosa, English).?
- Can we have an offline functionality?
- How to integrate backend APIs into the frontend?
- What will the feedback integration be?
e.g. Design mechanisms for customers to report issues (e.g., in-app forms, SMS)
- Can we have Anonymous reporting: Customers can flag violations without creating accounts?
- How to prevent fake reviews/abuse in the consumer directory?
- How to simulate SA's regulatory logic without actual government database access?
- Can we have an offline functionality?
If so, then how to handle data consistency in offline-first synchronization?
- Can we have the minimum **viable backend** that will be needed to demo registration, approval, and compliance workflows?

- Summary of UI patterns from similar e-governance platforms, can they be used as reference?
- Can we use an Integration Readiness Mock APIs for government systems (e.g. Business license verification?)
- How will Notifications be added and what for?
e.g. In-app alerts + SMS for critical updates (e.g., approval/rejection)
- What type of “Innovative Features” can be added?
e.g. Can a feature of “chatbot” be added? to guide users through registration and troubleshoot issues in local languages?
*The final research again will be completed after you received feedback and had a brainstorming session from the team which enables you to move deeper to what whole project idea is focusing on and future plans for prototyping *

Highly encourage and allowed to add your own key points on your research