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## 1.1 Introduction

For many years, the conventional path to success has been presented as:

- 1. Go to school
- 2. Complete tertiary studies
- 3. Obtain a degree
- 4. Secure a job
- 5. Live happily ever after

However, in South Africa's current economic landscape, this sequence has proven far more challenging than anticipated. Many graduates who pursued higher education with the expectation of securing well-paying jobs now find themselves burdened with increasing student debt, and no way to pay it because they are unable to find employment that aligns with their qualifications, leaving them either jobless or severely underpaid.

South Africa's unemployment rate has reached record highs, currently sitting at [insert statistic], leaving a significant number of graduates struggling to generate income.

Several factors contribute to this issue:

- Limited job availability: The number of businesses and job opportunities does not match the volume of graduates entering the workforce. In South Africa, approximately 250,000 graduates enter the labour market annually, yet only 30% secure employment upon graduation (Democracy Development Program, 2022). Over the past five years, the number of young graduates in the workforce has increased by 15%, while the overall workforce grew by 9%. However, the economy's capacity to generate employment has remained stagnant, leading to a near doubling of unemployed young graduates without prior work experience, now which comes to over 50,000 (71point4, 2023).
- Practical experience vs. education: Many employers prioritize practical experience over formal qualifications, making it challenging for graduates to compete with candidates who possess both industry exposure and academic credentials. A survey revealed that 68% of employers prioritize work habits and practical skills over educational qualifications during hiring decisions (Oxford Learning College, 2024). Additionally, research indicates that 87% of employers value a positive attitude over qualifications for entry-level roles, emphasizing the importance of soft skills alongside practical experience (Glee Recruitment, 2023). The COVID-19 pandemic has exacerbated this issue, as a lack of work experience opportunities has left many students feeling unprepared for

employment, with nearly **50**% of university students reporting unpreparedness due to insufficient practical exposure (*Prospects at Jisc, 2021*).

As a result, countless graduates feel disillusioned, trapped, and financially strained, unable to progress towards the "happily ever after" they were promised.

#### **Introducing Graduates**

Graduates is a platform designed to redefine how individuals utilize their education and skillset to earn an income. It provides a C2C (Consumer-to-Consumer) marketplace where skilled individuals can list their services, connect with potential clients, and generate income—whether through freelance work, tutoring, consultations, or specialized skills.

#### This platform aims to:

- **Empower graduates** by enabling them to monetize their knowledge and skills.
- Connect service providers and clients efficiently, with advanced filters based on experience, education level, and budget.
- Offer access to resources that help users refine or expand their expertise.

With service providers from around the world, all in one place, Graduates bridges the gap between skill and opportunity—helping individuals take control of their financial future in an ever-changing job market.

## 1.2 Needs/Problems

South Africa has been experiencing a persistent **unemployment crisis** for over two decades, with the national unemployment rate consistently above **20**%. Currently, the **youth unemployment rate**, which includes individuals aged **15-24 and 25 – 34**, with the bracket, **15-24** being **58**% and the latter **38**%, (BusinessTech, 2024). Making it the largest contributor to national unemployment. See Figure 1

Age	No. of people unemployed (%)		
55-64	11		
45-54	20		
35-44	29		
25-34	38		
15-24	58		

Figure 1: (BusinessTech, 2024).

While several efforts have been made by both the government and citizens to combat this issue, many challenges remain.

#### **Government Initiatives & Challenges**

The South African government has introduced several strategies to address unemployment (Department of Employment and Labour, 2020):

- **Job Creation & Job Preservation Initiatives** Focused on supporting existing jobs in distress rather than creating new ones.
- **Investment in Small Businesses** Providing financial aid to struggling small businesses.

However, these efforts fail to reach their full potential due to:

#### **Economic Consequences of Unemployment**

Misallocation of funds and government inefficiencies: A significant concern is the misallocation of resources within municipalities. The National Treasury has highlighted that when staffing ratios exceed specified norms, it may indicate "excessive staffing, inefficiencies or a misallocation of funds", which hampers service delivery and undermines public trust (BusinessTech, 2023).

- © Corruption: which diverts resources away from their intended purpose Corruption remains a pervasive issue in South Africa, with the Auditor-General reporting that over 98% of irregular expenditure of public funds is not followed up on, amounting to approximately R160 billion over recent years (Daily Maverick, 2018). This lack of accountability facilitates the diversion of funds, impeding development and service delivery.
- ☑ Inconsistent implementation: leaving many intended beneficiaries without support Despite a robust anti-corruption framework, limited success has been achieved in preventing and combating malfeasance in the public sector. As a result, many government programs fail to reach their intended recipients, further deepening economic disparities (SciELO, 2020).

High unemployment negatively impacts the economy and standard of living:

- Increased tax burden Fewer working individuals means higher taxes on those employed, South Africa's tax base is narrow, with only 2 million taxpayers contributing 80% of all personal income tax, placing a heavier burden on those still employed (Daily Investor, 2024).
- **Rising emigration rates** (SA-TIED, 2021)– Skilled professionals leave for better-paying opportunities abroad, shrinking the tax base.
- **Higher crime rates** A lack of income opportunities forces many into illicit activities for survival.

#### **Challenges for Small Businesses**

Many unemployed individuals attempt to create income through **small businesses**, but:

- Most businesses fail within five years due to low visibility and lack of marketing skills. Studies indicate that 70% to 80% of small businesses in South Africa fail within the first five years, a significantly higher rate than in many other countries (News24, 2022).
- Many struggle to find customers because of poor economic conditions.
   Economic constraints make it difficult for small businesses to attract and retain customers, as consumers have limited spending power (Marketing Strategist, 2023).
- The absence of affordable digital marketing solutions makes it hard to reach target audiences. While digital marketing is a cost-effective alternative to traditional methods, many small businesses struggle with the complexities, rapid changes, and costs associated with effective digital strategies (The Small Business Site, 2023).

#### The Need for an Alternative Solution

A **centralized platform** that connects **skilled individuals** directly with clients can provide a **sustainable solution** to unemployment. By enabling people to **offer services in a structured and visible way**, Graduates can:

- Improve accessibility to freelance and gig work.
- Reduce fraud through secure transactions.
- **Encourage business growth** through better marketing and visibility.

# 1.3 Goals/Objectives

#### **Goal 1: Increase Trust in Transactions**

**Objective:** Implement Escrow Payments to reduce fraud, ensuring service providers are paid only after work is completed.

#### **Goal 2: Improve Visibility for Service Providers**

**Objective:** Develop an AI-powered recommendation system that tailors search results based on user preferences and service history.

#### **Goal 3: Scale the Platform for Growth**

**Objective**: Build a scalable database to accommodate a growing number of users and ensure data security.

#### **Goal 4: Enhance User Experience**

**Objective:** Implement advanced search filters (budget, location, education level, experience) for easy service discovery.

**Objective:** Add chat and review features to improve user interaction and transparency.

#### **Goal 5: Diversify Income Streams for Users**

**Objective**: Enable digital product sales (e.g., teachers selling study guides, past papers, or tutoring services).

# 1.4 Procedures/ Scope of Work:

The following steps outline the development and implementation process of the platform:

#### 1. User Interface (UI) Design & Navigation Structure

- Define the look and feel of the website, ensuring an intuitive and responsive design.
- Develop wireframes and prototypes to determine how users will navigate the platform.
- o Implement frontend functionality using for dynamic user interactions.

#### 2. Database Development & Security

- Create a scalable database structure to store user profiles, service listings, and transaction records.
- Implement data encryption and access control measures to ensure security and compliance with privacy regulations (POPIA, GDPR).
- o Optimize database queries to maintain efficiency and speed.

#### 3. AI-Driven Recommendation Algorithm

- Develop a recommendation system that suggests relevant services to users based on:
  - Browsing history within the platform
  - Past service requests and interactions
  - User preferences (filters, budget, location, etc.)
- o Ensure the algorithm operates within legal data privacy constraints.
- Provide an opt-in feature for users who wish to share external browsing data (only if legally permissible via third-party API integrations).

#### 4. User Data & Privacy Policy Implementation

- Develop a comprehensive user agreement and privacy policy that outlines:
  - What data is collected
  - How data is stored and used.

- Users' rights regarding their data (including the ability to opt-out of tracking).
- Remove tracking from third-party applications unless users explicitly link their accounts via approved API connections (e.g., Facebook Login, Google Analytics).

#### 5. Backend Development & Functional Logic

- Implement server-side logic to process user requests and interact with the database.
- Develop APIs that handle service listings, transactions, escrow payments, and user communication.
- Integrate a payment gateway with Escrow functionality to prevent scams.

#### Scope of Work

The first iteration of the platform will include:

#### 1. User Authentication & Role-Based Access

- Login & Signup System where users register as either sellers (service providers) or customers (service seekers).
- Profile creation, allowing users to add service descriptions, pricing, and experience details.

#### 2. Escrow Payment System

 Purpose: Prevent fraud by holding funds until both buyer and seller confirm service completion.

#### Traditional Definition:

#### What Is an Escrow Account?

In real estate, escrow is typically used for two reasons:

- To protect the buyer's Good Faith Deposit, ensuring the money goes to the right party according to the conditions of the sale.
- To hold a homeowner's funds for property taxes and homeowners insurance.

Because of these purposes, there are two types of escrow accounts: one used during the home-buying process and another used throughout the life of a loan (Graham, 2025).

#### How It Works In the context of online payments:

- Funds are deposited into an Escrow account when a service is booked.
- Once the seller completes the service and the buyer confirms satisfaction, payment is released.
- If there's a dispute, the system facilitates resolution before releasing funds.
- Integrated using third-party escrow service.

#### 3. Service Listing & Search Features

- Users can list services under categorized sections (e.g., tutoring, graphic design, web development).
- Filtering & Sorting: Customers can refine searches by budget, location,
   education level, and experience.

#### 4. User Communication & Review System

- o Chat functionality for direct communication between buyers and sellers.
- o **Review and rating system** to improve transparency and credibility.

#### 5. Database Management System

- o Stores user profiles, service listings, transaction records, and reviews.
- Implements data protection and access control to ensure privacy and security.

# 1.5 Timetable:

	Description:	Start Dates and End Dates
Deliverable 1	Create a proposal, that details the type of client you are targeting as well as the problem you are attempting to solve, the proposal must also include measurable goals which will count as checkpoints with regards to how the production of the website is going in comparison to how it is going. The proposal should be defined under the headings: Introduction: which gives us background information on the target population  Needs/Problems: this defines the problem you are trying to solve with regards to the population  Goals/Objectives: These are the measurable goals, which will be mainly erected from the problems identified in the 'needs/problems' section the proposal must also include a detailed time breakdown about the activities that need to be completed	19 February 2025 - 28 February 2025
Deliverable 2	Creation of prototype 1, construct different diagrams to display functionality of the website, prototype must consist pf the following diagrams:  • CRC cards  • Enhanced Entity Relationship Diagram	01 March 2025 – 07 March 2025  Prototype 2: 08 March 2025 – 31 May 2025

	<ul> <li>Context Diagram</li> <li>Data Flow Diagram</li> <li>Use Case Diagram</li> <li>Also create prototype 2 which would include samples of actual functional code from the website created, include HTML code, CSS code as well as javascript</li> </ul>	
Deliverable 3	Final testing to ensure all components operate as intended, create presentation as well as user manual to guide new user through the website	01 May 2025 – 15 June 2025

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