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**SOFTWARE ENGINEERING PROJECT REPORT**  
**CO328**

**UNIQuE**

**Social identification platform**

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GROUP 01

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## 01. Introduction



Most common and oldest way of identify anything is using name tags or some kind of a identification which simply we said ID cards. This is physical type of document that nowadays which is not well compatible with the digital society. This the main problem of this traditional way of identification.

It has to be undoubtedly accepted that we use too many verification cards such as our national identity card, driving license, debit and credit cards, insurance cards etc. Having these cards all over the wallet it makes our daily lives bit uncomfortable. Choosing the right card at the right moment is not that easy. Not only that, filling the application forms to make sure that we are eligible to get such card is far more difficult; it is a waste of our time as well. You

might have happened to have number of IDs with your states. In that case using a wallet to keep them all may not be your preferred option.

On the other hand you couldn't able to use the same id at two places at the same time. And the possibility of the physical IDs are being damaged or misplace is very high. Once if it is get damaged, stolen or lost, you will have to spend more time on creating them again.

Using hard copies for making IDs and forms is not easy and as well as not efficient. On the other hand, it not even easy to manage all those documents. When those physical Ids are needed to be transfer from one place to another, all most all the time it happened hand to hand or via some delivery service unless you do it yourself. In that case there is no privacy either protection or security of the information.

To overcome all these issues we introduce our project unique which is basically an all in one verification system; which will verify you from others at bank, at office, at hospital, at police station, etc. It's a unique identity which is tailor made representation for you. With this product we expect to get you rid of from all the paperwork that is taken place where ever you newly register.it may be at Department for Registration of Persons, Department of motor traffic, at bank, at your office etc. Only thing what you've got to do is show your smart identity which will be basically a QR code given to you through the application.

The clients can create an unique set of IDs in our platform and which can be get accessed through a web application as well as a mobile application by the users (ex: client : a company, user: their staff). With this app we believe that government departments, private companies and even multinational

companies will be able to increase their efficiency and become more productive to the audience that they deliver their service. If you feel more comfortable doing it in a bank office, take your national identification document like a passport or an ID-card with you and visit your local SEB or bank office for identity validation. Once you've done that, you're good to go. Just remember, if you want to use Smart-ID on multiple smart devices you will need to register each device individually for the authentication to work. That's why we proposed this product.

## 02. About Product

Because of reasons like above, we proposed UNIQuE which is virtual platform to create any unique identity. It basically consist of a platform that can be access by any one and create IDs, a database to store all information and a verification system of those Ids when they are being used.



We introduce new ID which on your smartphone. Its app that has all IDs and certificates. Unique is the easiest, fastest and safest way to authenticate yourself online!

This is like you get a user id and a password and through that you can access to your id (this work as an account so if you have more than one id all of them will be show there.). When you use that id that will be recognized from the QR code that comes with it. For the verification (QR code read) it's also included a feature on the application.

## **2.1 Vision of the product**

In the modern world most the things are virtual, So we try to ID also make as a virtual thing, that means after another 5 year time all IDs are in one place that means using that app we made any person can access their own ID using their smartphone. As well as we publish our own ID verification app of other parties how need to find is that ID is valid or no.

We try to test this first using our next batch in Peradeniya university and we make their campus ID using this virtual platform and do what next modifications of this product. and we have aimed to at four year time introduce this to our people registration department for do all national ID to convert into in this virtual platform.and then introduce this to Driving license and then the police can easily verify driving license by our app and if someone did a wrong thing because this is in an online database they can give marks automatically, in now they can not give marks to drivers because of connections between ID and database are not made yet.

## **2.2 Product Overview**

- This is virtual ID and all in one place, if someone has five IDs all are in one app only thing is they have their own username and password to access to their app.
- And any other parties want to verify is this valid ID then we made another app to validate their IDs.
- If anyone made an ID using this platform then again if he or she makes ID from this platform then he or she can share their data with other company without entering all the data again.

## 03. Implementation

### ❏ Technology

#### 1. Browsers

Browsers show us our web page in a format we can see and understand

**Google Chrome**

**Safari**

#### 2. HTML

It provides the structure of a website

#### 3. CSS

They make the web look good.

#### 4. Programming Languages

**PHP**

**JavaScript**

#### 5. Frameworks

Frameworks are built to make building and working with programming languages easier.

**Node.js - a server-side JavaScript framework**

**Bootstrap - a UI (user interface) framework for building with HTML/CSS/JavaScript**

#### 6. Libraries

**jQuery**

#### 7. Databases

**MySQL, MongoDB**

#### 8. Data formats

**JSON** - is quickly becoming the most popular data format

#### 9. Testing

**MOCHA, CHAI** - Testing modules for node.js

**TestCafe** tool

**POSTMAN** - Google extension for API testing

## ❑ Feasibility

Most of the resources and tools that we are planning to use in developing the platform is open source and under low cost. On the other hand our business model mainly focus on mobile application we develop for the users. And the financial resources also sufficient to sustain itself through a period it is not returning a profit. Therefore when considering the business viability, it is not impossible that the profit will meet the commitments to business creditors as well as to the owners.

For the whole project development cost is under low level as above mentioned facts (low cost resources). And in considering the operational cost, the users have to use a smart device in order to access to their id through the mobile app or web application. But these days everyone use some kind of smart device (like phone, tab, etc.) there is no extra cost for operational cost.

On the other hand the technological feasibility also achievable within short time period, the efficiency of the project also can be considered as high. Therefore the big picture of overall economic feasibility is achievable in good terms.

It is obvious that the whole concept of UNIQUE is totally efficient and productive than the current running physical identification method. Therefore in case of potential threats and finding out solutions to overcome them won't be an issue at any time in marketing process. So the marketing feasibilities also simply can be achievable.

The created unique identifications for the client is well protected and secure. Therefore no privacy violation can be presence within the system. And all the data processing comply with the local data protection regulations and there have no unacceptable ventures in accordance to the laws of land. Therefore legal feasibility of the platform can be considered as high.

## ❑ Business Plan in summary

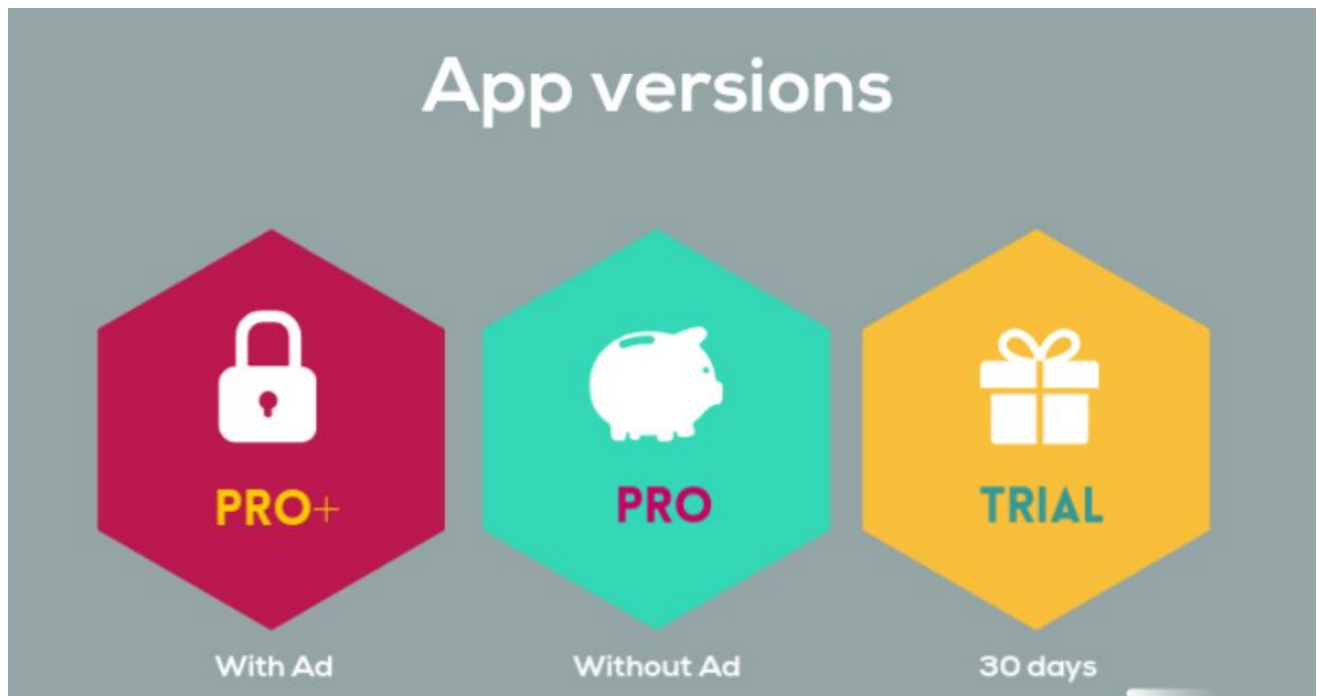
The basic service we are providing to the client is providing the platform to create unique IDs and also a database to store their data securely. In very first year it will be growing period for the business. Therefore without much customer base it is better to mainly target in marketing improving the customer base. Until the recognition and the reputation is being built the best option is to focus on private sector (more than 80%). Less clients (a company or an organization) means less ID users (staff of the company) therefore at this stage in the business model we hope not to charge an initial cost for the registering in our service. But only for access for the database and services charge for creating IDs.

After two –three years, once the customer base is stable we hope to provide the facilities to the client to create any unique IDs in the platform on their own, therefore there is no service cost for the client. Meanwhile we mainly focus on the side of the people who using those created IDs. Because the client will be mostly either a company or an organization which represent the ID users (ex: Staff). Therefore client will be an individual but the ID user's wont. So that the focusing on the mobile application is more profitable. There will be a huge customer base to use the mobile application and traffic advertising will be a good point in the business plan. For the web users is also applicable.

In next stage when the UNIQUE is well known and enhanced with strong customer base, It will be strong enough to increase the 25% of government field to 100% because it will be a good strategy to introduce our service to the public because the targeted audience of Government field (Public) is higher than private sector.

## ❑ Marketing Plan

At first stage we mainly focus on the private sector more than 75%. Because it will be a great opportunity to introduce the product to the market. The only cost that the client has to pay will be for the use of data base for their storage of data. And we hope to introduce version of accounts categorized under differences in features. For our main focus, mobile application we introduce three app versions.



**1. Trial** - in this version users will have a period of time (30 days) to experience our services and familiar with the services. But the features and facilities are limited in this version.

**2. Pro** - For the people who ready for the next stage we will provide Pro app and they have purchase the app or update the trial version to pro version. In this version we hope not to include traffic advertisement but promotion banners. There still have limitation of features.

**3. Pro+** - The users who wants to upgrade their version to pro+ will be able to use all of our features and facilities. And we are planning to include traffic advertisements.

All of the payments will be per month or year. We also provide option for the customers to choose their plan either year or monthly.

To parallel to these organizing a promotion campaigns with in the social media as well as outdoor. In this campaigns we will be manly focus on the benefits that the users will get. And we also hope to include affiliate marketing for the app users which they will provide a referral link to send some and let others to join with our service. And they will be rewarded according to their number of referrals.



## **04. Conclusion**

In present society for each person there are many physical identities associated with various companies, firms and also with the government. In this platform main focus is to generate virtual IDs for companies and for such organizations.

If a user have an ID in this platform he/she can share data with other companies without filling forms again.

From company perspective, using this platform they can interactively communicate with users by using messages and also they can share advertisements with subscribers.

## **05. Future Works**

A mobile application is planned to be developed for this platform. By using this clients would be able to bring their all IDs associated with various organizations within their mobile phone as QR codes which can be easily used with a simple scanning.