**Course Code: COMP 2606**

**Course Title: Software Engineering**

**Group #: 11**

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**Project Name: Digital Immunization Card**

**Requirements Documentation**

Functional Requirements

User requirements

1. A user shall be able to create an account by providing their email address and any other relevant personal information.
2. A user should be able to verify their account by providing the verification code which was sent to the email they provided.
3. A User shall be able to create new records for an individual by providing their personal information including the necessary credentials (Name, Birth certificate pin #, scanned copy of Birth Certificate) and given that these credentials don’t already exist in the database.
4. A user shall be able to add any individuals records to their account providing their personal information including the necessary credentials (Name, Birth certificate pin #, scanned copy of Birth Certificate).
5. A user shall be able to search for the nearest health clinic, based on the user’s current location.
6. A user shall be able to see which health clinic currently has their vaccine of choice.
7. A user shall be able to see any individual’s record who’s records were added to the users account
8. A user shall be able to view which vaccines he/she will have to take in the future.
9. A user shall also be able to search for a country and be presented with the vaccines which are mandatory for travel to the selected country
10. A user should be able to access the unique identification number for any individual who’s records are added to the user’s account; this unique identification number could be in the form of a QRcode or plain text.
11. A user with privileged authorization (such as a medical practitioner) should be able to update a user’s immunization history via an internal website/database (Intranet, Ministry of Health website etc.); this database is connected to the Immunization app, so once changes are made and confirmed by the doctor, the same is reflected on the app. This connection is also how the app is aware of a health institution’s current vaccine inventory.

System Requirements

1. The system should allow a user to create an account given they can provide an email address and other personal information (name, address, etc).
2. The system should send a verification code to the email the user provided.
3. The system should allow the user to enter their verification code and verify the account.
4. The system should allow the user to add any individual’s records to their account once they can provide the individual’s personal information, including the necessary credentials (Name, Birth certificate pin #, scanned copy of Birth Certificate).
5. The system should allow the user to search for the nearest health clinic, based on the user’s current location and display the results for the user.
6. The system should allow the user to select a vaccine and the medical facilities which are currently stocked with the vaccine should be presented for the user.
7. The system should allow the user to view each individual who is added to the users account.
8. The system should allow a user to view the vaccines which they would need to take in the future.
9. The system should allow the user to select a country and the vaccines which are required to enter the country should be presented for the user.
10. The system should allow the user to view the unique identification number for any individual whose records are added to the user’s account; this unique identification number could be in the form of a QRcode or plain text.
11. The system should allow an individual with privileged access to update a user’s immunization history via an internal website/database (Intranet, Ministry of Health website etc.); this database is connected to the Immunization app, so once changes are made and confirmed by the doctor, the same is reflected on the app. This connection is also how the app is aware of a health institution’s current vaccine inventory.
12. The system should only allow access for updating immunization records to anyone who has privileged access.

Non-Functional Requirements

1. A medical practitioner should be the only person able to update a user’s immunization history; this includes adding the practitioner’s name, name of health institution, type of vaccine and date of vaccination to the user’s immunization record.
2. The health institutions in stock of a particular vaccine should be sorted based on the user’s proximity, when the user searches for a vaccine of choice.
3. The Immunization app’s user interface should be very simple to use, with clear headers and fields when requesting user information, and a simple layout illustrating the user’s immunization history.