FaceID
Information Portal for Forensic Facial Reconstruction in Sri Lanka

Group IS-08

Supervisor - Mr.Roshan Rajapakse

Mentor - Ms.Sanduni Thrimahavithana

Members - 17020141 (Madhavi Bandara)
17020956 (Ashan Tharindu)
17020735 (Taniya Rodrigo)
17020727 (Kavindi Rathnayake)

Introduction

- Forensic facial reconstruction is the process of recreating the face of an individual from their skeletal remains
- It is still at its infancy in Sri Lanka and is yet to utilize the advanced technologies of other countries
- **The aim is to introduce an information portal for the processes and tools development by the FaceID Project**

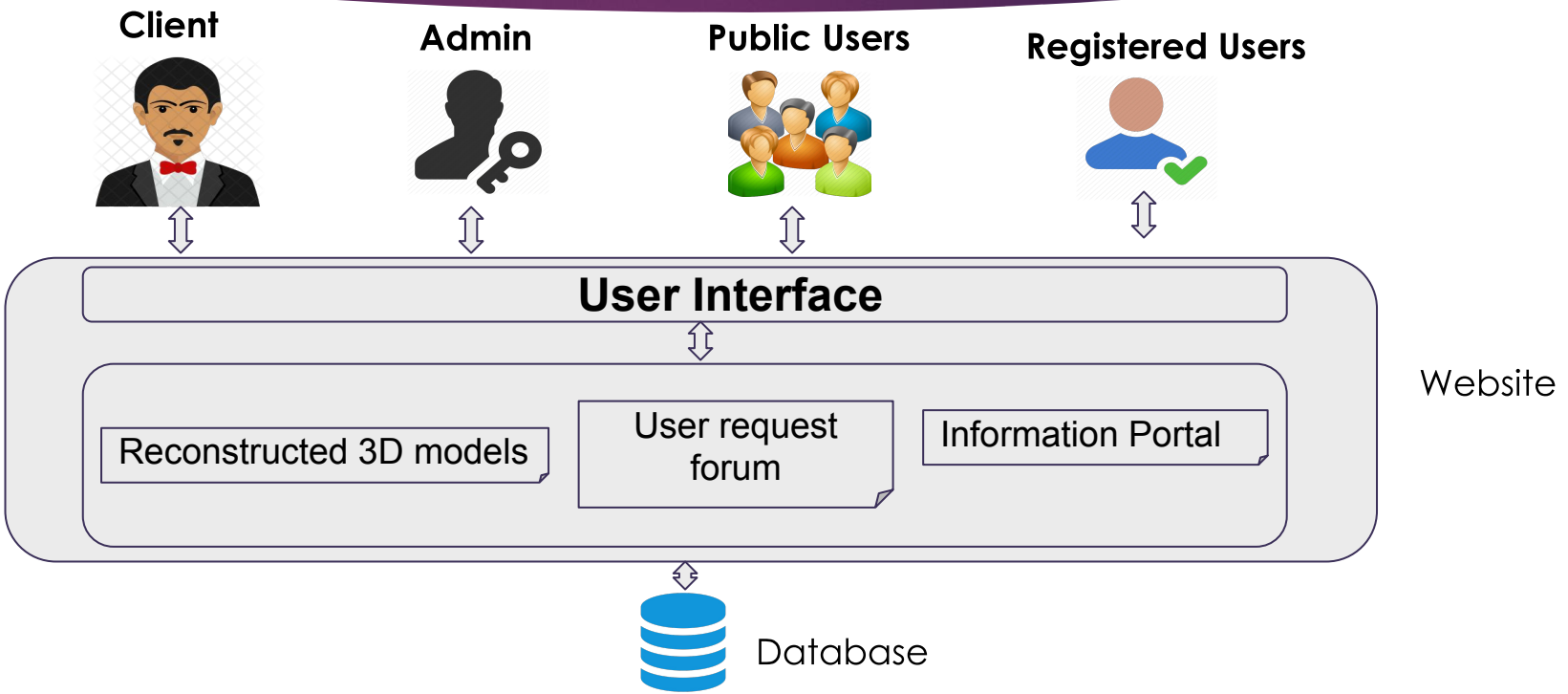
Project Description

- A complete web based application
- A single platform for all inquiries about dead bodies, directly connected to the Forensic Department
- Different parties such as general public, forensic officials, lawyers and CID are to be benefited from this application
- Client - Professor Muditha Vidanapathirana

Objectives

- Developing a web based unit for the Forensic Department -Universiy of Sri Jayawardenapura to inform the public about reconstruction outputs
- Providing the ability for the public to send messages to the Forensic Department about the missing and found dead bodies
- Providing an online information portal on Forensic Facial Reconstruction
- Automating the process of contacting the Forensic Department

High Level System Architecture



Feasibility Study

- Technical Feasibility
- Resource Feasibility
- Operational Feasibility
- Cultural Feasibility
- Legal and Ethical Feasibility

Technical Feasibility

- The main technologies to be used
  - HTML
  - php
  - three.js or other free software to render the 3D models etc.
- Freely available technologies and technical skills required are manageable
- Therefore, it is technically feasible

Resource Feasibility

- The resources required for the project are
  - Programming device (Laptop)
  - Hosting space (Freely available)
  - Programming tools (Freely available)
  - Programming individuals
- Therefore, it has the required resource feasibility

Operational Feasibility

- The desired objectives are attainable
- The 3D models will be created by the forensic department-University of Sri Jayawardenapura
- The development team will render the reconstructed 3D models
- An employee from the department will respond to the public requests and inquiries.The system consists of user friendly interfaces
- Therefore, it has the required operational feasibility

Cultural Feasibility

- The proposed project will make the forensic facial reconstruction process more accurate and convenient
- The forensic department can train a single employee to respond to the messages from the public
- The forensic department is willing to use the proposed project
- Therefore , the proposed project has the required cultural feasibility

Legal and Ethical Feasibility

- A government recognized project
- The system output does not contain any sensitive information
- User requests are viewed only by authorized personnels
- Therefore, the proposed project is legally and ethically feasible

Economic Feasibility

- System development cost requires no funding
- Will be using only freely available software
- Deployment cost will be handled by the client
- Therefore, the proposed project is economically feasible

Project Scope

- Deliverables
- Out of Scope
- Limitations

Deliverables

- Rendering 3D models to the website
- Information portal on forensic facial reconstruction
- Forum for the public to send details of cases which require reconstruction

Out of Scope

- Finding dead bodies and gathering information
- Reconstructing 3D models using the skull
- Responding to the requests and inquiries

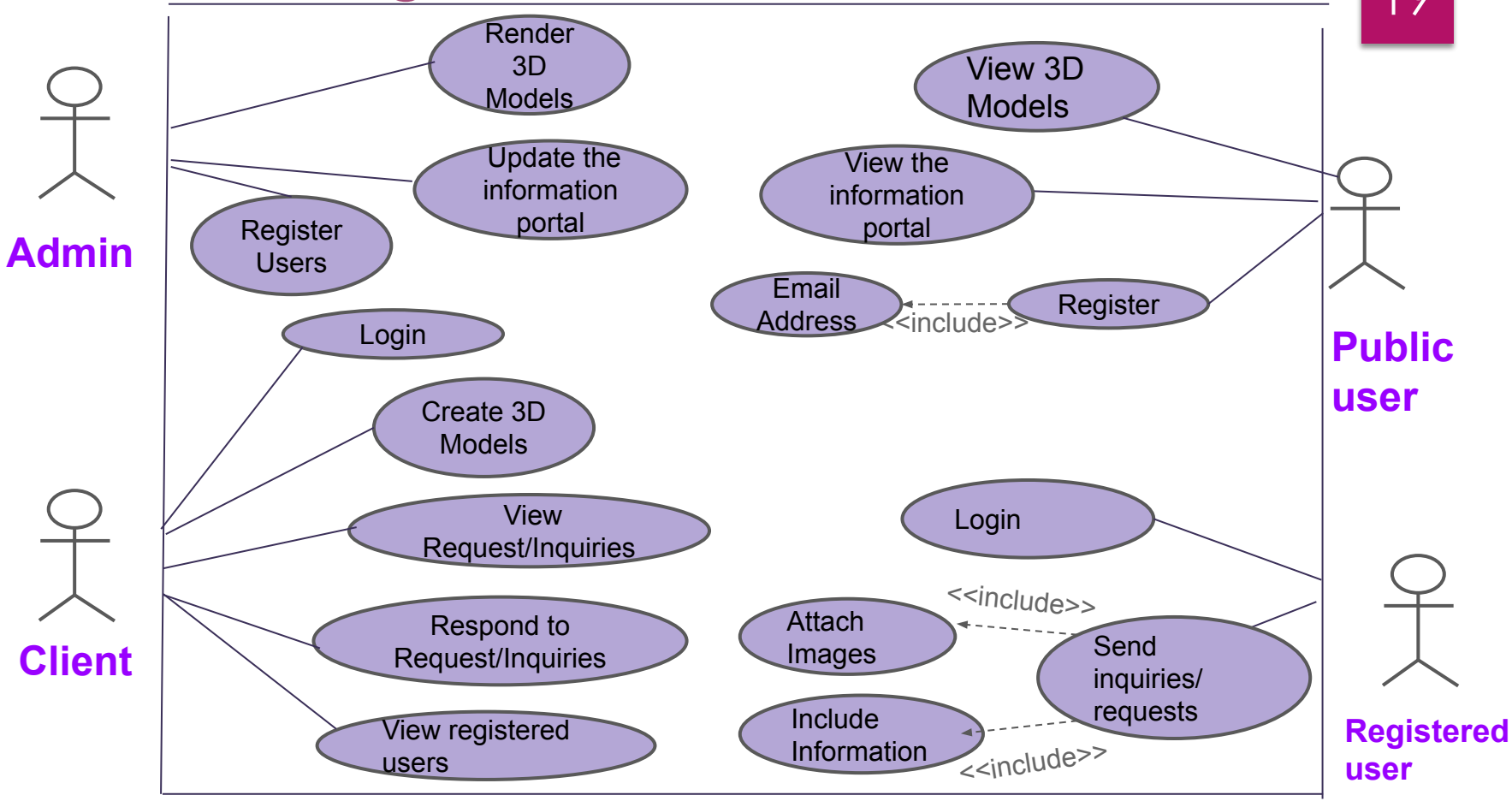
Limitations

- The output will be a dial down version of the project outputs (in terms of size and quality)

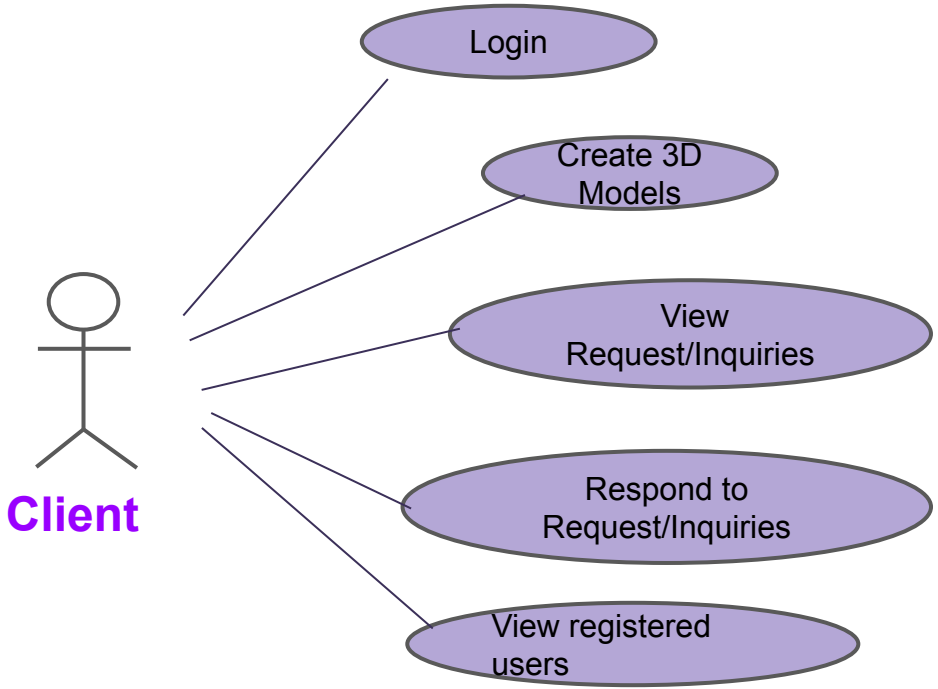
Use Case Identification

- Admin
- Client
- Public User
- Registered User

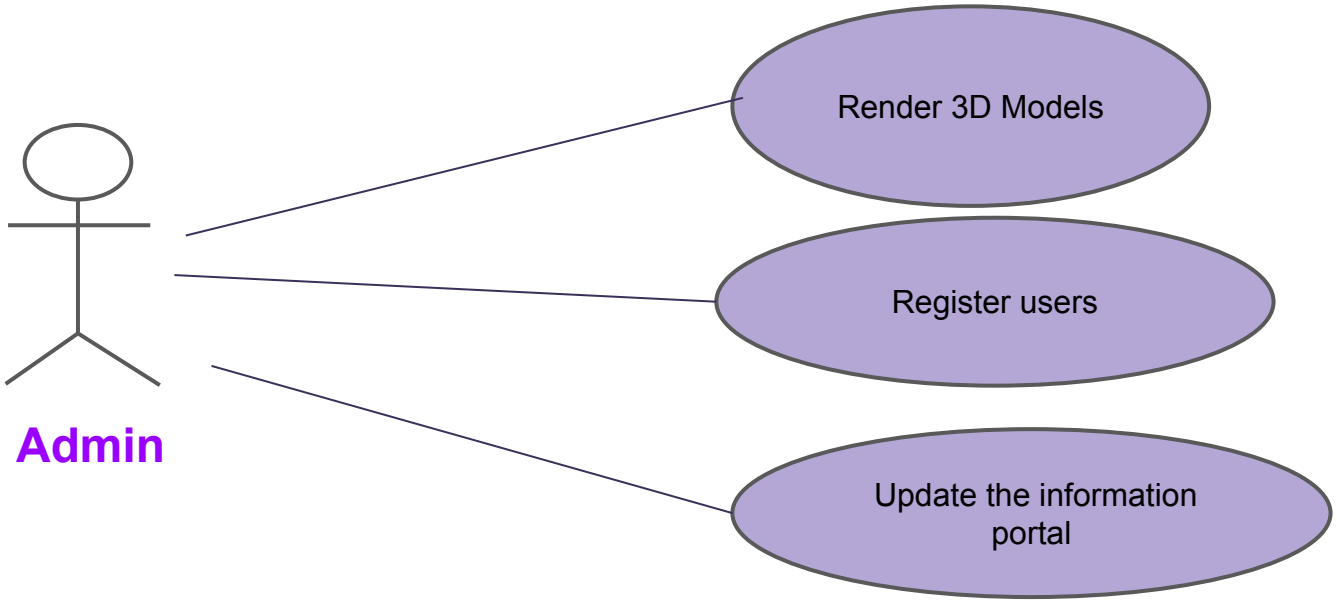
Use case diagram



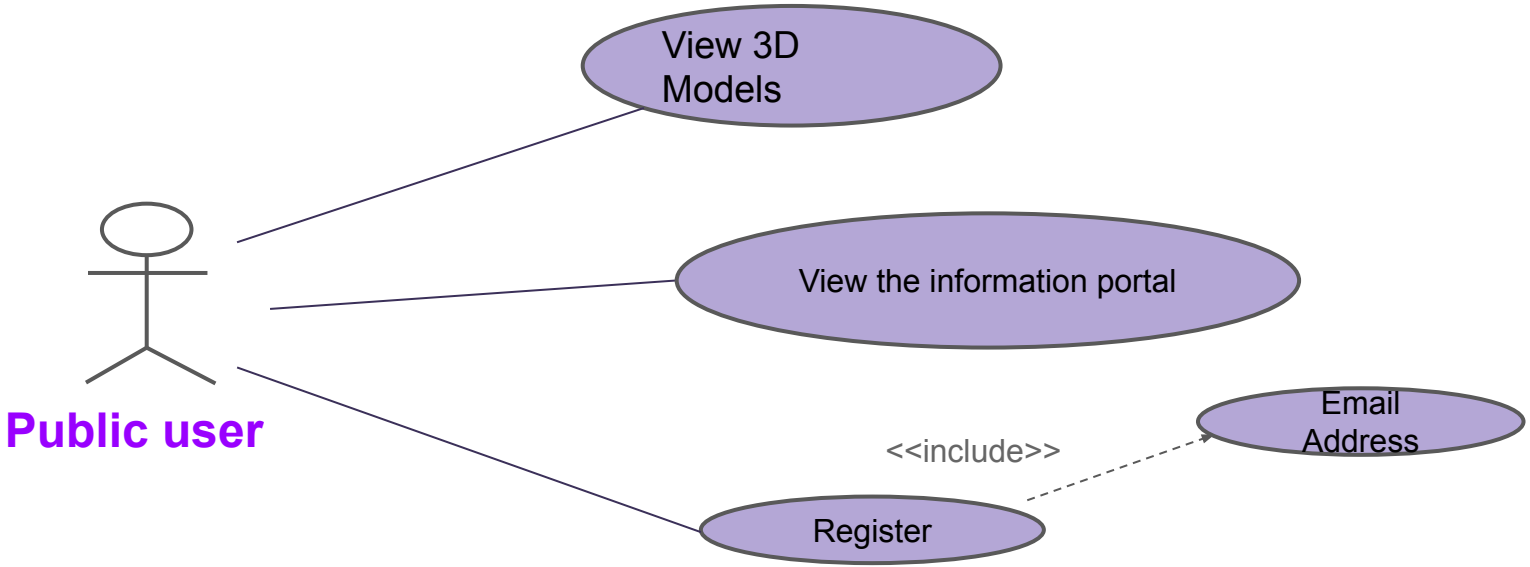
Use case for Client



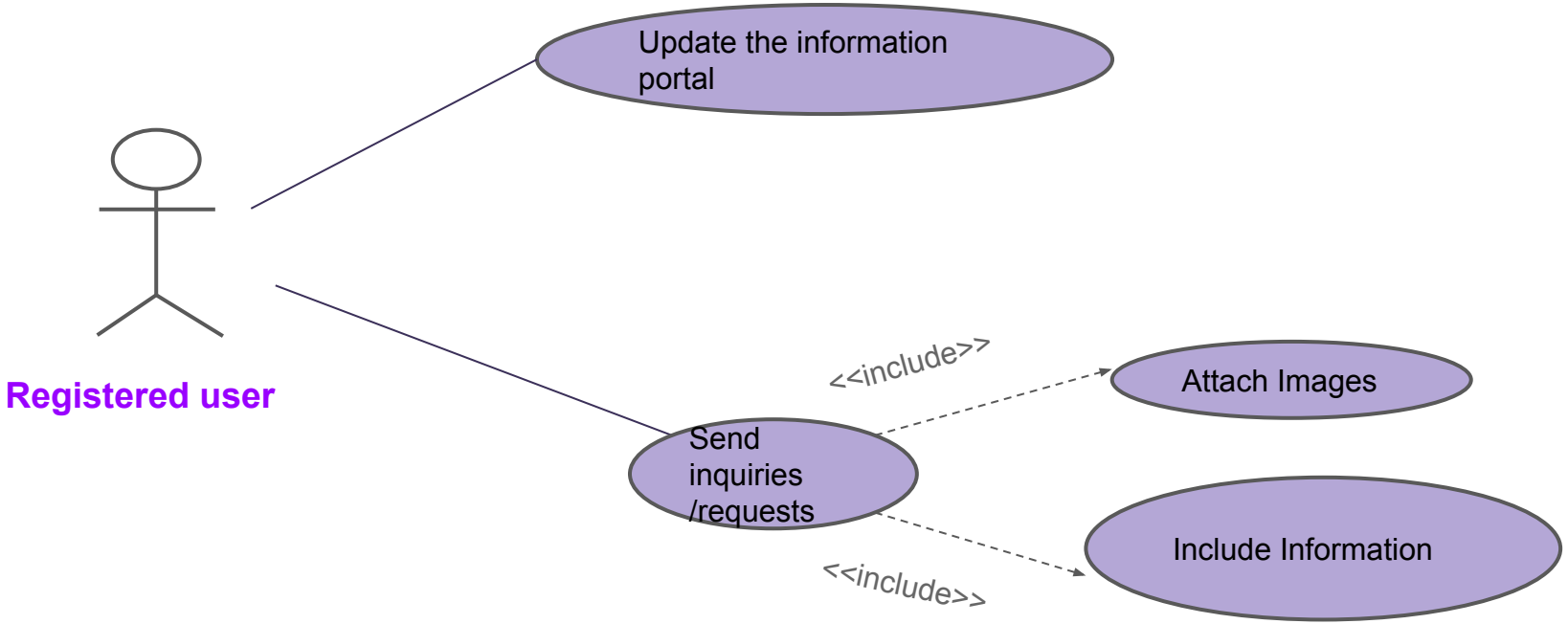
Use case for Admin



Use case for Public User



Use case for Registered User



System Requirement Identification

- Functional Requirements
- Non-Functional Requirements

Functional Requirements

Client

- The proposed system will be able to show the 3D models created
- Creating an information portal about Forensic Facial Reconstruction
- Forum to request and to inform about the dead bodies

Functional Requirements ctd.

Admin

- Should be able to add(register) new public users
- Should be able to add 3D images of dead bodies to the 3D-Models page

Functional Requirements ctd.

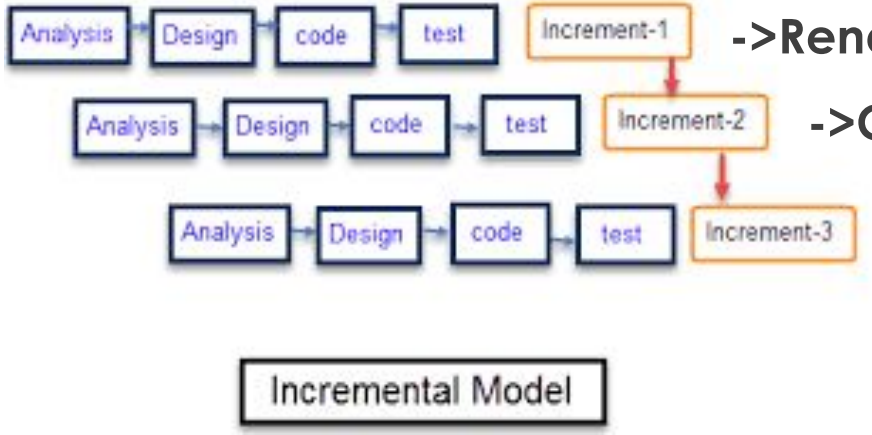
Users

- Should be able to request for a dead body
- Should be able to upload images of dead bodies in the message
- Should be able to view the 3D images of the bodies through the front page

Non-Functional Requirements

- Privacy
- Security
- Quality
- Response time
- Quality

Delivery Plan



->Rendering 3D Models

->Creating the information portal

->Creating the forum

Delivery Plan ctd.

Q&A

THANK YOU!