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# COM3610: Dissertation

## Survey And Analysis Report

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### Managing The Extenuating Circumstances Process



## The University Of Sheffield

This report is submitted in partial fulfilment of the requirement for the degree of  
Computer Science by Rushil Shah.

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# Declaration

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# **Abstract**

## **Background**

Students who suffer from personal problems usually fill out the Extenuating Circumstances Form (ECF) which are then processed by various departments, some with higher clearance than others. This project is based on creating a system which can achieve confidentiality, ease of access and increase efficiency by reducing paperwork. Data has to remain confidential not only with different levels of hierarchy but also from outsiders trying to gain access.

## **Project Aims**

The system should achieve confidentiality, allow the stakeholders to toggle around quickly and efficiently allowing feedback and communication at all times and should reduce the paperwork pile.

## **Achievements to date**

Comparison between potential systems; Web based system or a mobile phone application. Information processing with a lot of data would not be readily accessible on an application and so a web based system is a potential project.



# Acknowledgements





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# Chapter 1. Introduction

## 1.1 Background

Students who suffer from personal problems usually fill out the Extenuating Circumstances Form (ECF) which then allows the examination board (the scrutiny committee) to consider their problems. The process usually begins with the student submitting the form and being reviewed. In situations where there is not enough evidence, the committee asks the student to provide more evidence and then processes the information accordingly, for example the committee may ask the student to present a death certificate. The form at this point has detailed information about the personal problem but from here on, only the general problem (without including details of the specific problem the student is facing) is taken ahead to the other departments and also added to the Students Record to allow leniency in terms of examinations and other assignments. Information regarding the ECFs can be found on the University Of Sheffield's page.[1]

## 1.2 Problem

Students sometimes fill out the form with less detail and so they need to be re-filled or the students have to provide more feedback/evidence. This leads to multiple documents being created and a lot of paperwork explaining the scenario. The forms are then accessed and duplicated by other departments and also added to the system for the Student Report. Multiple departments with different hieratic allowances creates a lot of confusion which then leads to improper book keeping and a reduction in information confidentiality. These forms may also be up for appeal and with multiple and mixed up forms the whole process tends to be biased.

## 1.3 Aims And Objectives

The system has to reduce paperwork, be secure enough to allow different levels of confidentiality and access and also be an easy but efficient to use system. A system which can be accessed by students, the examination board and can also be integrated into the student report. The forms contain important information in terms of text and so using a device such as a smart phone would not be efficient and could bring up accessibility issues. On the other hand a web based system with the correct levels of security and encryption can be access by anyone as long as they have a device connected to the Internet. All University buildings have access to computers making browsing easy. A big screen would allow accessibility and information can be processed swiftly.

Django[2], a high-level Web Framework based on Python allows the design of the system we are looking for. Its built-in features allows the coder to avoid and prevent

security threats such as SQL injection, cross-site scripting, cross-site request forgery and clickjacking[2]. It also data to be stored and encrypted in a database,

## 1.4 Report Summary

The report consists of five different chapters including this one. Chapter Two - Literature Review which expands on the use of web systems for solving the problem as well as other possible techniques that could be used but were not because of limiting factors. This chapter contains a broad variety of information and research. Chapter Three - Requirements And Analysis, contains specific information building on the previous chapter and contains evaluation of the project. Chapter Four - Progress will talk about the the testing and results that have taken place with all achievements to date. Lastly Chapter Five - Conclusion And Project Plan will summarise and end the report on the projects plan.

# Chapter 2. Literature Review

## 2.1 Introduction

Digitalising the Extenuating Circumstances Forms would have different platforms to choose from. Technology has advanced to different levels. Web based Systems, Smart Phone Applications, Virtual Reality, Augmented Reality, Artificial Intelligence[3] and recently introduced Blockchain Technology. However, for a system allowing users to fill forms it would be difficult to use Virtual Reality and Augmented Reality as these are used for altering the perception of the world[4]. Same goes for Artificial Intelligence as this would be costly to implement and not very useful when it comes to Extenuating Circumstances. In this section we will look at Web Based Systems, Mobile Phone Applications and the Blockchain Technology!



# Chapter 3. Requirement And Analysis





## Chapter 4. Progress



# Chapter 5. Conclusion And Project Plan



# References

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- [3] F. J. DeMers, “7 technology trends that will dominate 2018.” <https://www.forbes.com/sites/jaysondemers/2017/12/30/7-technology-trends-that-will-dominate-2018/#7e4e30157d76>, 2017. Accessed: 01.11.2018.
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