**[Document Title]**

[Document Subtitle]

Cristiano Cardoso Maia

**Abstract**

[Type the abstract of the document here. The abstract is typically a short summary of the contents of the document.]

Table of Contents

1. Introduction (5 marks) 3

1.1 Middlesex University 3

1.2 Objectives, Values and Mission 3

1.3 Marketing Department 3

2. Analysis of Operational Systems and Data Sources (20 marks) 4

## Introduction (5 marks)

## 1.1 Middlesex University

A University in England with roots back to 1878 who has since build up a reputation in London and international as a providing a high level of higher education from its wealth of experience and strategic operational capabilities. Through strengthening our efficiency by employing highly qualified academics, attracting the best ambitious students and strengthening our research reputation we can capitalise internationally on becoming an excellent international tertiary education establishment.

## 1.2 Objectives, Values and Mission

Our Objectives are to attract students that are determined to succeed and support these students with the correct support and insure student satisfaction by developing policies to maximise their performance. We strive to enhance graduate level employability in an effort to improve our university rankings. We have strategies and policy to organise our schools to enhance excellence.

“Our vision is to become a leading University of choice, recognised internationally for excellence in all that we do.”

## Marketing Department

Middlesex University Marketing department is based at our London campus and from here we launch and manage our advertising. We specialise and focus on each of our five schools across the three different campuses universally. We receive investments for our advertising projects internally as well as from external sources.

* + Try to get an updated version of the files below:
  + [University Regulations for the Academic Year 2004/2005](http://www.web.mdx.ac.uk/regulations/archive/regs0405/STS.HTM)
  + [Equality and Diversity at Middlesex University](https://www.mdx.ac.uk/__data/assets/pdf_file/0009/58707/Equality-and-Diversity-Strategy-2013.pdf)

[Click here](http://www.bbc.co.uk/bitesize/higher/business_management/business_enterprise/decision_making_business/revision/1/) for more information about the pyramid below.



## 2. Analysis of Operational Systems and Data Sources (20 marks)

What operational system they have in place? A discussion of the organisations current operational system

What data is stored?

What are the tables?

How are they connected?

What are the advantages and disadvantages of the current system?

Design an ER diagram from the Marketing department. UML notation!

Include the Determinacy diagram

Design the DFD diagram (extra points!)

Data store (DFD) is an entity on the ER and tables on the database schema

Advantage and disadvantage of having a data warehouse (Slide week 4)

3 - Data mark design

Two subject areas, within the section of the business

Snowflake is normalised! Star schema is not

4 - ETL process

How extract data from operational system?

What do you do with it before storing on the data warehouse?

Implement the prototype of one of the star schema

5 - OLAP.

How to query it?

What would managers be interested at?

6 - Conclusion

What challenges do we have to keep it up and running?

Performance? Amount of data stored. Flexibility to adapt/include/remove different columns.