**MARKING SCHEDULE**

|  |  |
| --- | --- |
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| 6. Architecture / Infrastructure Design | 20 |
| 7. Interface Design | 20 |
| 8. Appendices | 4 |
| Total marks | 100 |

ICT313 Neuromend

Tempest

Design Document



# Title Page



**Project name:**

Neuromend

**Client/organisation:**

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# Executive Summary



Purpose of the document is to provide a blueprint for building the system Neuromend and to provide a clear picture of the software. This document acts as a reference for the system, and will aid in the distribution of development among the development team. If the system is destroyed, it should be able to be rebuilt using this document.

This document is going to discuss data design, process design, architecture/infrastructure design, and interface design for the system.

# Introduction



Should include, but not be limited to:

Description of the scope and purpose of the document

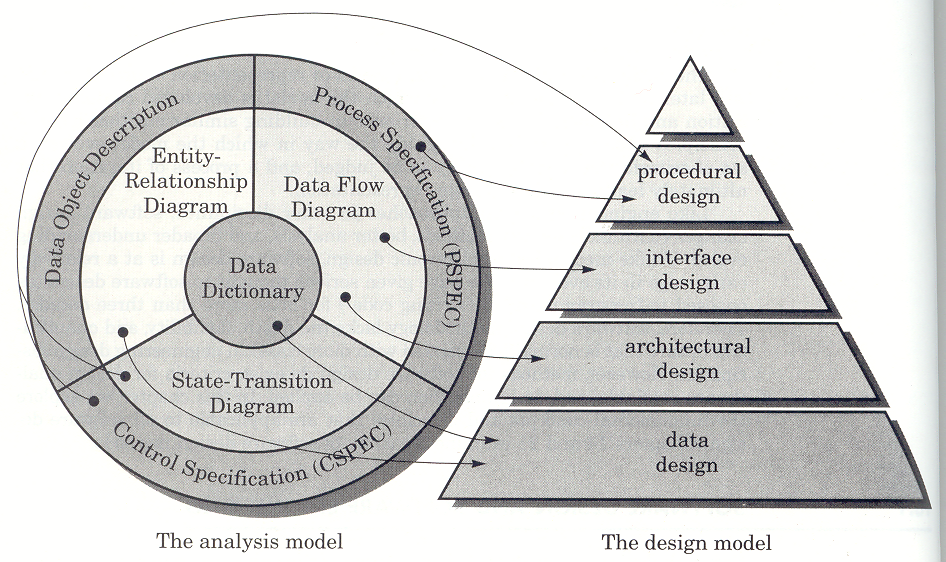
Description of the document's intended audience

Identify the system/product using any applicable names and/or version numbers

Provide references for any other pertinent documents such as:

* Related and/or companion documents
* Prerequisite documents
* Documents which provide background and/or context for this document
* Documents that result from this document (e.g. a test plan or a development plan)
  + - * Define any important terms, acronyms, or abbreviations
      * Summarize the contents of this document

Design process:



# Data Design



Review and develop data objects, relationships, data flow and content

Identify all data structures and the operations performed on them

Create the data dictionary to represent the relationships among data objects and the constraints on the elements of the data structure

If using a database, perform database design

Data-to-Process CRUD Matrix if applicable

# Process Design



Detailed description of each software component:

* Process models, either traditional (DFDs & all required levels) or event-driven (decomposition diagram, event response diagrams and use case lists etc.
* Process descriptions (using structured English), expanded use-case narratives (if not already done), possibly decision tables

Address processing controls

Include algorithms, as well as an overview of the components using structure charts, hierarchy charts, etc.

If using OOM/P you will need class diagrams and sequence diagrams, either high-level with a data dictionary, or low-level which includes all the definitions.

# Architecture/Infrastructure Design



Define the architecture of the system

Provide an architectural diagram if applicable (this can include the structure of static web pages, a guide to navigation).

Additional software components as necessary

Infrastructure requirements: capacity, performance, integration & compatibility, platform strategy, security, back-up & recovery, scalability, future proofing

Discuss alternative designs

Infrastructure requirements:

* Capacity: one user at a time.
* Performance: speed of each level completion is timed.
* Integration and compatibility: new system. Requires compatibility between Oculus Rift + Razer Hydra, Oculus Rift + Leap Motion, Oculus Rift + Kinect, or a keyboard + mouse.
* Platform strategy: PC Windows 7.
* Security: Confidentiality for the user; storing ID instead of names and having data protected in the database.
* Back-up & recovery:
* Scalability:
* Future proofing:

# Interface Design



The design of the interfaces between software modules:

* The design of interfaces between software and non-human (external) entities.
* The design of the interface between human and computer (HCI)

You should provide mock screen-shots of the interfaces of the system you intend to create.

Interface specifications: input/output controls, formatting, etc.

# Appendices



Appendix A: Deliverable Task Breakdown Statement: completed, signed, scanned and copied into document

Appendix B: Glossary/data dictionary

Appendix C: Glossary of terms and definitions and acronyms

Appendix D: Any other information you consider necessary to include