

EECS 22L: OCR Software Specification Grading Criteria

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The second deliverable in the *Optical Character Recognition(OCR)* project is the software architecture specification that describes the data structures and software organization, as well as the development and **testing** plans. Similar to the user manual, this document can be refined in the following weeks so that it matches the actual implementation in detail. However, in contrast to the user manual which is intended to be read by the software user (consumer), the software architecture document is meant for the developers (producer) who implement the software components and later maintain the software product.

Specifically, the software architecture document should describe the overall software architecture, the installation and configuration of the source code, and in detail the data structures and algorithms used, together with all major functions and their parameters. Last but not the least, this document should describe a specific testing plan, including **unit test** for each module and **system test** of the entire flow.

For full credit (100%), the document submitted by your team should include the following sections:

Title page

- Software title, version
- Author/producer, affiliation

Front matter

- Table of contents
- Glossary (of terms used in the implementation)

1 Software Architecture Overview

- 1.1 Main data types and structures
- 1.2 Major software components
 - Diagram of OCR module hierarchy
 - OCR pipeline stages
- 1.3 Module interfaces
 - API of major module functions
- 1.4 Overall program control flow

2 Installation

- 2.1 System requirements, compatibility
- 2.2 Setup and configuration
- 2.3 Building, compilation, installation

3 Documentation of OCR modules and interfaces

- 3.1 Detailed description of data structures
 - Critical snippets of source code

3.2 Detailed description of preprocessing, postprocessing and OCR functions and parameters

- Function prototypes and brief explanation

3.3 Detailed description of input images and output text

- Format of an input image
- Format of the output text

4 Testing plans

4.1 Unit test of module 1

- Description of function tested
- Description of input test data
- Description of expected output data

4.2 Unit test of module 2

- ...

5 Development plan and timeline

5.1 Partitioning of tasks

5.2 Team member responsibilities

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