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**B.Sc. Hons. in Software Engineering**

**CW228**

**Project Plan**

**Project Title: Number Plate f**

**Recognition f**

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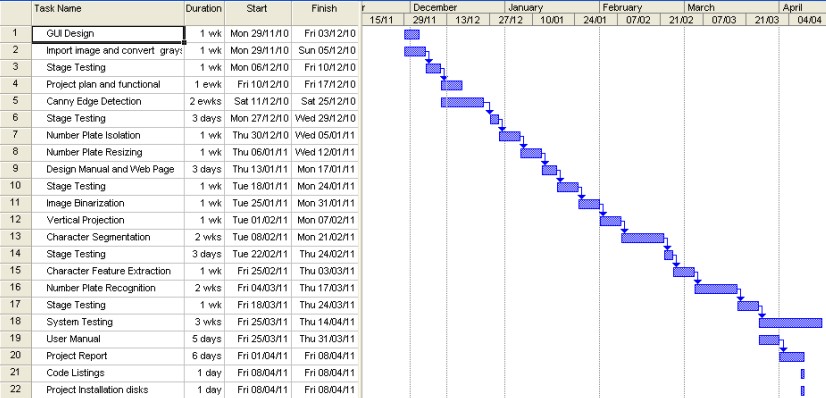
# Introduction

This document is to make a plan for the whole project, including the tasks in each develop phases and the duration of each task.

# Project Plan

## Gantt chart Of Project Plan

The whole project is scheduled by each task. Each task is given a certain duration to deal with. Details are listed in a Gantt chart made with Microsoft project.



## Task Details

|  |  |  |
| --- | --- | --- |
| **Task ID** | **Task Name** | **Task Details** |
| 1 | GUI Design | Design of user interface |
| 2 | Import original image and convert to grayscale | Import image, display it in the Original Image Panel. Implement grayscale convention. |
| 3 | Stage Testing | Test all implemented functions |
| 4 | Project Plan and Functional | Project Plan and Functional Specification Document |
| 5 | Canny Edge Detection | Implement Gaussian smoothing algorithm, edge thresholding algorithm and present the edge detected image. |
| 6 | Stage Testing | Test all the implemented functions in edge detection and previous functions. |
| 7 | Number Plate Isolation | Search the number plate area by using a slide-window move around in the edge detected image. |
| 8 | Number Plate Resizing | Remove the border of the number plate |
| 9 | Design Manual and Web Page | Design Manual Document and Web Page Introdution |
| 10 | Stage Testing | Test all the implemented algorithm in number plate localization and previous functions. |
| 11 | Image Binarization | Convert the isolated number plate sub-image into black and white. |
| 12 | Vertical Projection | Apply vertical projection onto the binary sub-image. |
| 13 | Character Segmentation | Separate the character in the binary sub-image by using the vertical projection data. |
| 14 | Stage Testing | Test all the implemented functions in segmentation and previous functions. |
| 15 | Character Feature Extraction | Extract the features from each character by using character feature extraction algorithm, store the feature into a character feature array. |
| 16 | Number plate recognition | Compare the character feature array with the templates to recognize number plate. |
| 17 | Stage Testing | Test all the implemented functions in character recognition part. |
| 18 | System Testing | Test the entire system. |
| 19 | User Manual | User Manual Document |
| 20 | Project Report | Project Report Document |
| 21 | Code Listings | Code Listings Document |
| 22 | Project Installation Disks | Make a Installation Disks for the system |