International Institute of Professional Studies
Devi Ahilya Vishwavidyalaya
Indore,M.P.

Software Design Document
On
Text Processor For Identification Of Offences

Guided By: Submitted By:

Dr. Shaligram Prajapat   Lakhanveer Lodhi
                                                                      (IT2K17-26)

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1.0. Introduction

1.1. Purpose

This document contains the complete design description of the software system that effectively manages and predicts the IPC sections charged on an accused. The system allows police to access and decide the IPC sections through this web application. And though by the help of this project we are going to convert the manual process by the automatic IPC sections generation according to the offences committed by the accused so it will be time saving for the police and they will simplify very complex tasks.

With help of this application the faith on this legal process will also have been tried to regenerate and provide a fair decision and to avoid any mistake done by the manual hands and it avoids the usage of influence to misguide the case.

The primary audiences of this document are the Police of various states of India.

1.2. Scope

The web-based system deals with the text provided by the authorities firstly has to login and then fill the chargesheet in the provided window and then performs text segmentation on the given text to break it into small meaningful chunks of lines and words. After breaking them into meaningful chunks, the algorithm will then classify/ categorize the given text with the appropriate IPC sections and give us an output on the output window.

1.3. Glossary

Term	Definition
IPC	Indian Penal Code
FIR	First Information Report
Charge sheet	A document containing sections and act implied against any crime being conducted.
NLP	Natural Language Processing
Python	Programming Language
Text Segmentation	Breaking the text into smaller forms using NLP.

Text Summarization	Extracting the summary of given text using NLP.
Django	Python framework to develop web based applications
HTML/CSS	Language to make the front pages and log-in pages
User	Reviewer or Author.
Review	A written recommendation about the appropriateness of an article for publication; may include suggestions for improvement.
Reviewer	A person that examines an article and has the ability to recommend approval of the article for publication or to request that changes be made in the article.

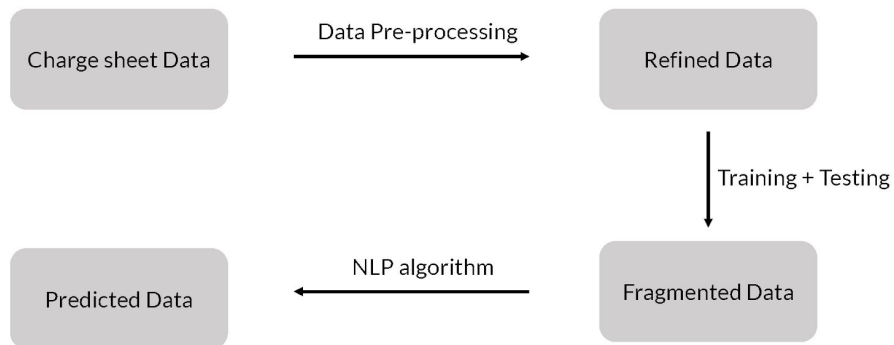# 2.0. Lifecycle of the complete Project

2.1. Overview –

Keeping an account of the number of offences being coming on a daily basis, and deciding the IPC sections according to the charge-sheet charged on the basis of FIR. And also keeping a track record of criminals committing crimes frequently.
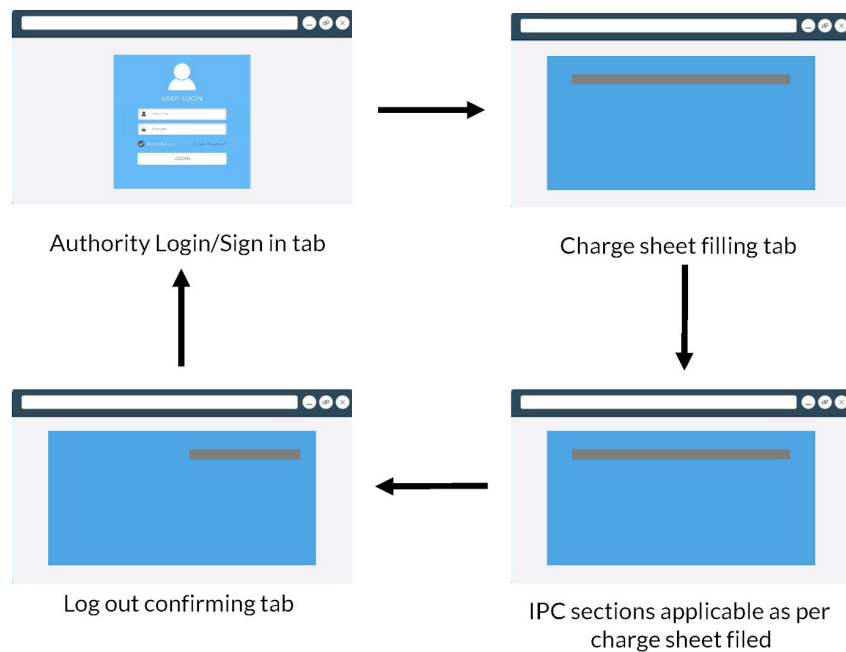
This system provides a better, permanent, non-redundant record of everything to the respective authorities, helping them to manage the crime record and predict the IPC sections accordingly. It will also allow the authorities to know the frequent crime committing criminals beforehand which helps them decide whether they want to go or not against the bail grant of the accused and look for other available options as well. Handling of data becomes easy and the system provides much efficient and speedy decision making.
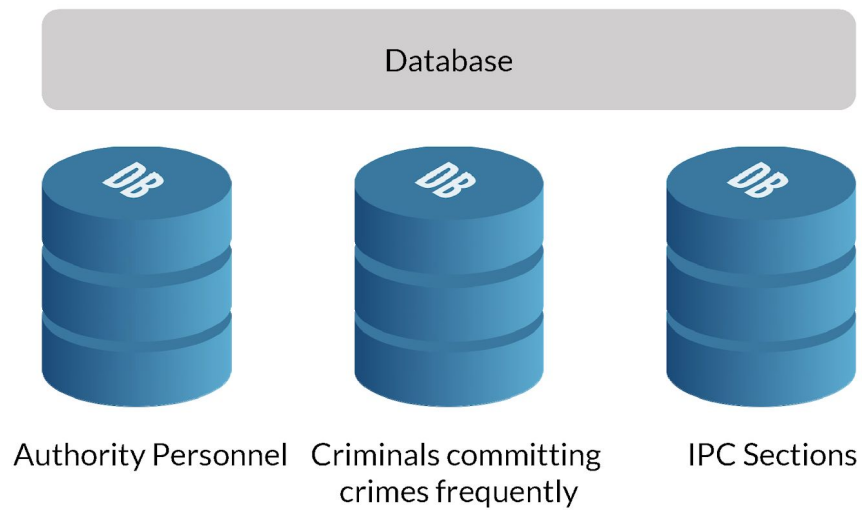
2.2. Procedural phases:

- **Phase 1: Data to be processed and trained with the help of NLP**

- **Phase 2: Developing Web Application**

- **Phase 3:Connecting to the Data-Base**

2.3. Functions:

Work under progress

2.4 Coding:

Work under progress

3.0. Validation of result:

Work under progress

1.4. References

- [Bruegge-Dutoit 97] Bernd Bruegge, Allan Dutoit: *Model-Based Software Engineering: A Project-Oriented Approach*, Course Manuscript.
- IEEE standards