SOFTWARE PROJECT MANAGEMENT

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Safe Path Recommender Using News Feeds

Step-1 Establish project scope and objectives.

1.1 Project Success will depend on the following key factors.

- Among overall project tasks, round about 20% of the tasks produce 80% results
- Key features like NLP modelling, Application development both will be 80% of the project.

1.2 who is the boss?

Engineer Noman Siddique is the Project Manager of project

1.3 Identify stakeholders?

- Round about 20% stakeholders are actually the most relevant
- The most relevant stakeholders are
    - Project Manager
    - Security Agency
    - Government
    - Developers and Designers
    - Business analyst
    - End Users

1.4 Modify objectives in the light of stakeholder analysis?

- Following are the key objective in light of key stakeholders

    - The Application that can suggest the safe path between the points enter by user.
    - Reported crime by user must be reported to security agency to take action

1.5 Establish methods of communication with all parties?

- To safe time of each parties following are the methods of effective communication

- **Interactive communication**

  1. Video Conferencing

- **Push Communication**

  1. Emails
  2. Projects Documentation

- **Pull Communication**

  1. Project management software

Step 2 Establish project infrastructure.

2.1 Establish a link between the project and any strategic plan?

- **Visions and Goals**

  The Safe path recommender application which will recommend the safe path to user to ensure their safety.

- **The Customer is King**

  This project is purely to benefit the end user so their satisfaction is basic need of project.

2.2 Identify installation standards and procedures?

- **Simple mobile phone**

  A simple smart phone with android or IOS operating system

2.3 Identify project team organization?

- There are round about 20% people in a project who have great skills and great ideas.
- "Engr. Noman Siddique" will work as a Project Manager and Business Analyst.
- Project is divided into two Phases where **Phase A** is Data collection and modelling Phase B is application development

Role	Names
Project Manager + BA	Noman Siddique
Phase A	Noman Siddique
Phase B	Hifza Majeed

Step 3 Analysis of project characteristics.

3.1 Distinguish the project as either objective or product-based?

- It is Product-based project as it will give us product whose details are already cleared.

3.2 Analyse other project characteristics (including quality-based ones).

The project website has characteristics:

- User-Friendly Design
- Mobile-Friendly Features
- User review
- Extensive product information

3.3 Identify high level project risks

- Risk, problems, issues, conflicts and ambiguities are part of project.
- It is believed that there are round about 20% of key issues that cause 80% of the problem.
- The most probable risks to occur are

RISK	Level	SOLUTION
One route of certain path	**Medium**	• **Suggest to take safety measurement by user**
Wrong crime report by user	**High**	• **Login before crime reporting** **.**
Server Downtime	**High**	• **Choose companies with a good reputation (Domain, Hosting, clouding, etc.).**

3.4 Select a general life cycle approach?

- The waterfall development model will be used to create systematically from one phase to another
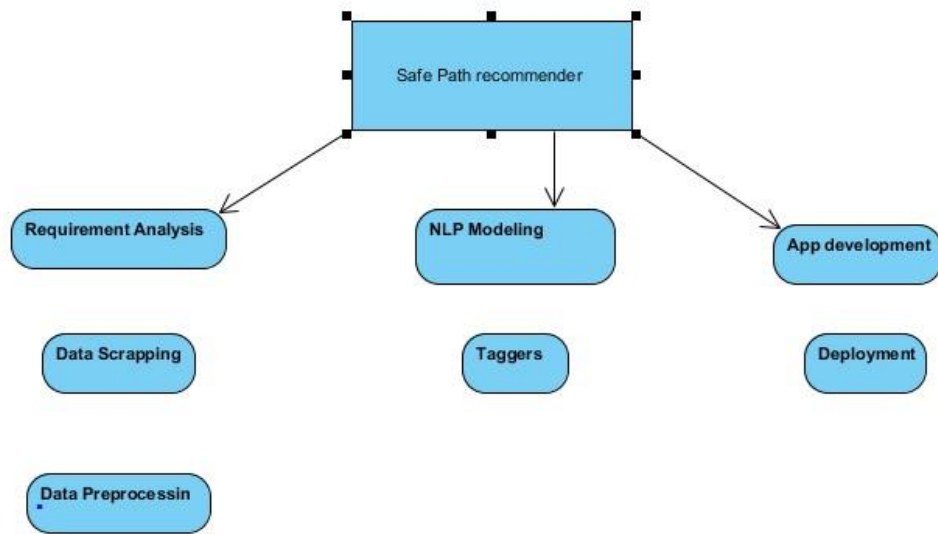
3.5 Review overall resource estimates?

- Project is in the estimated budget and time.

Step 4 Identify project products and activities

4.1 Identify project product and activities

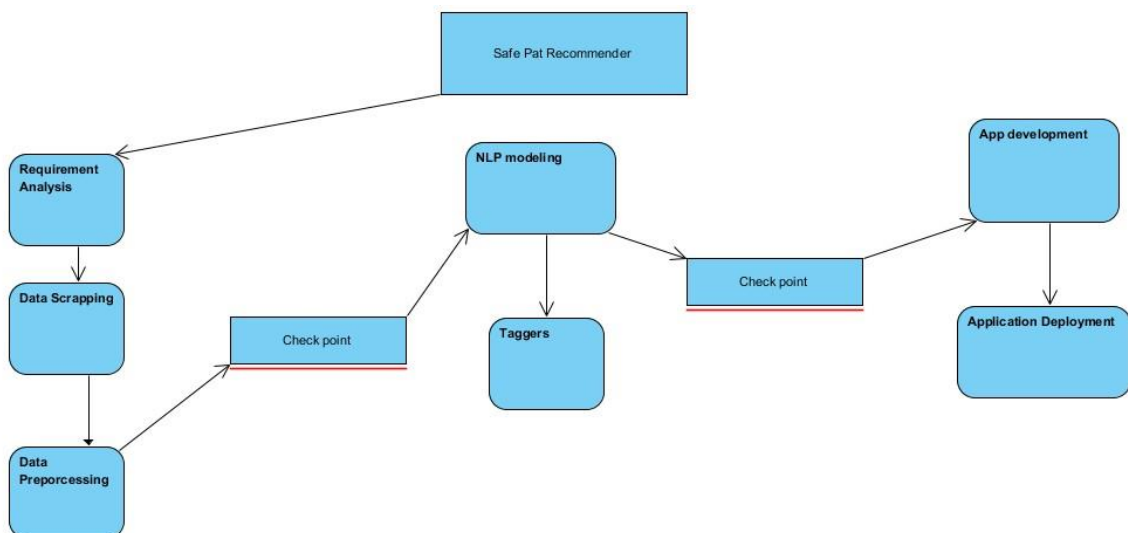## 4.2 Document generic product flows

- Identify most critical task.
- Avoid wasting time on less important tasks.

4.3 Recognize product instances

4.5 Add check points

Step-5 Estimate effort for each activity

5.1 Carry out bottom-up estimates

- Estimated any smart phone
- Estimated Time required (1 year approx.).
- Estimated cost ($10000 + $ 5000) Requires.

5.2. Revise the plan to create controllable activities

- 80% of your effort should focus on those 20%.
- Ensure time deadlines are met for these tasks.
- Requirement and Data collection
- NLP model implementation
- App development
- Deployment

Step-6 Identify activity risks

6.1. Identify and quantify risks for activities

- Risk, problems, issues, conflicts and ambiguities are part of project.

6.2. Plan risk reduction and contingency Measures

- Identify those issues
- Identify their source

6.3 Adjust overall plans and estimates to take account of risks.

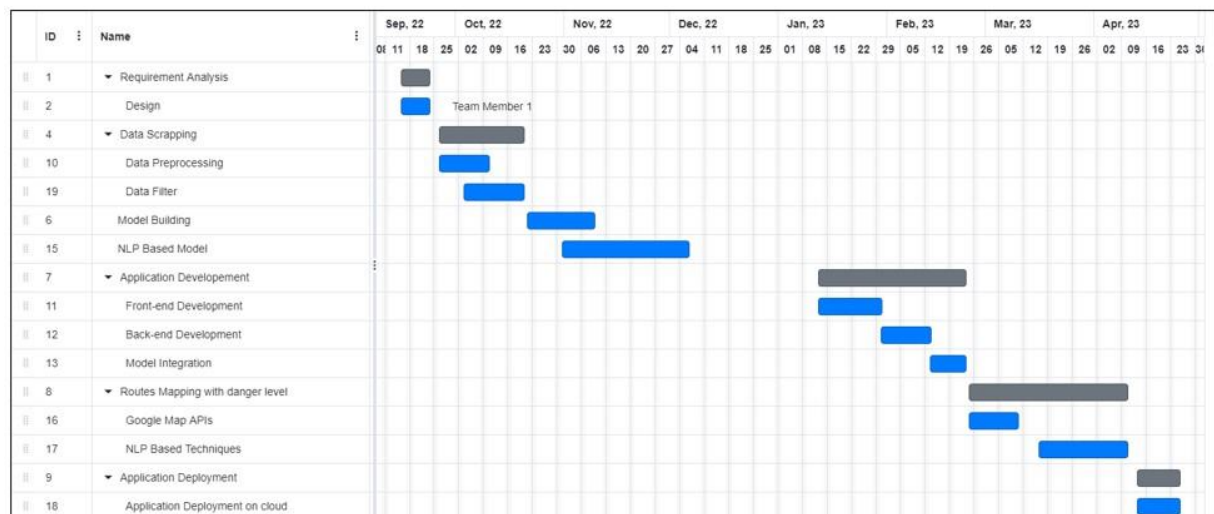| Risk	Impact	Solution
User unfriendly interface	high	• Use of user known symbols and sign • User survey to get to know what they like.
User and functional requirements	High	• Properly planned project. • Prototyping and integration.

Step-7 Allocate resources.

7.1 Identify and allocate resources to activities

- The most important resource is the human resource.
- Software developers, software engineers, Project managers, Business analysts, efficient hardware, and the latest software required. (Available).
- NLP model designer (Available)
- Project started on 22-Sep-2022 and is due 22-4-2023. (Noted).

7.2 Revise plans and estimates to consider resource constraints

- ensure not to overload.
- Keeping that in mind Data scrapping will be outsources

Gantt Chart

Step-8 Review/ publicize the plan

8.1 Review quality aspects of the project plan

- **Processes for Quality Assurance**

    This Project will undergo quality measure to ensure any error

    E.g. Junit testing, etc.

8.2 Document plan and obtain agreement

- Releasing the final Product
- Post-Project Evaluations
- Trust and Alignment Effectiveness
- Schedule and Budget Management
- Customer Satisfaction
- Archiving of Document

Step-9 and step-10 Execute the plan and create lower level plans.

9. Project Execute Plan?

- **Project Scope:**

  There will be an application made using flutter which will have NLP algorithms to compute the safe path available using crime rate dataset

- **Quality Standards:**

  The design is very human friendly and will easily use by all the users.

- **Goal Statement:**

  The Safe path recommender application which will recommend the safe path to user to ensure their safety.

- **Signoff**

  The deliverables will be release for general public.

10. Create lower-level plans

- **Quality Assurance Plan**
- Compatibility across every platform
- UI / UX Design
- Application Speed

- **Configuration Plan**
- Configure production tools
- Configuring Multiple instances