**Phase-1 Submission Template**

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**1.Problem Statement**

It's hard for computers to read numbers written by hand because everyone writes differently. This project will use deep learning to teach a computer how to recognize handwritten digits. This can help make AI systems smarter and more useful in real life.

**2. Objectives of the Project**

* Purpose: Outlines the specific goals and outcomes that the project intends to achieve.
* Importance: Provides direction and a clear roadmap for the project team.
* Characteristics: Should be SMART (Specific, Measurable, Achievable, Relevant, and Time-bound).

**3. Scope of the Project**

* Purpose: Defines the boundaries of the project, including what will and will not be included.
* Importance: Manages expectations, prevents scope creep, and helps in resource allocation.
* Characteristics: Should be clear, concise, and comprehensive. It often includes:
* Deliverables: The tangible outputs of the project.
* Inclusions: The tasks, activities, and data that are within the project's purview.
* Exclusions: The tasks, activities, and data that are outside the project's purview.
* Limitations: Constraints or factors that may affect the project.

**4. Data Sources**

* Purpose: Identifies the sources of data that will be used in the project.
* Importance: Ensures that the project team has access to the necessary data and understands its characteristics.
* Characteristics: Should specify:
* Type of data (e.g., structured, unstructured, text, numerical).
* Source of data (e.g., databases, APIs, files, public repositories).
* Data format (e.g., CSV, JSON, SQL).
* Data volume and velocity (if known).
* Data quality and any preprocessing requirements

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**5. High-Level Methodology**

* Purpose: Describes the overall approach and steps that will be taken to achieve the project objectives.
* Importance: Provides a framework for the project execution and ensures a systematic approach.
* Characteristics: Should be:
* Logical: Steps should follow a natural sequence.
* Comprehensive: Cover all key phases of the project (e.g., data collection, analysis, modeling, deployment).
* Adaptable: Allow for flexibility and adjustments as the project progresses.
* Clear: Easy to understand by all stakeholders.

**6. Tools and Technologies**

* Purpose: Lists the software, hardware, and other tools that will be used in the project.
* Importance: Helps in resource planning, procurement, and technical execution.
* Characteristics: Should be specific and include:
* Programming languages.
* Software libraries and frameworks.
* Hardware requirements.
* Cloud platforms (if applicable).
* Data management tools.
* Visualization tools.

**7. Team Members and Roles**

* **HARIPRASATH R:** Leads the project, manages the timeline, and communicates with stakeholders.
* **ABDUR RAHΜΑΝ Α:** Analyzes data, builds models, and finds insights to support the project goals.
* **MOHAMED RIYAZ A:** Develops the software or application and ensures it runs smoothly.
* **VIGNESH M:** Collects, cleans, and organizes data for use by the team.