***WBS Dictionary:***

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| **WBS** | **WBS Task Name** | **WBS Description** |
| **1** | **Project Conception & Initiation (Phase 1)** | **Formally recognizing Smart Autogate Using Plate System** |
| 1.1 | Project Charter | A project charter is a statement of the Smart Autogate project's scope, goals, and stakeholders. |
| 1.1.1 | Objective and Constraints | The desired outcomes of our project are described by project objectives. Time, scope, and cost are the three key constraints that project managers should be aware of. |
| 1.1.2 | Create Implementation plan | A document that specifies the steps our team should follow to achieve a common objective or initiative is known as an implementation plan. |
| 1.2 | Stakeholders | Make a list of everyone who is engaged in the Smart Autogate Using Plate System. |
| 1.2.1 | Determine Stakeholders | It is necessary to enlist and manage rivals, shareholders, suppliers, and investors. |
| 1.2.2 | Identify Target Users | Customers interested in the project, such as toll operators, are identified and managed. |
| 1.3 | Guidelines | Make a list of the guidelines to be followed for the project to be completed effectively. |
| 1.3 | Project Initiation | Providing last minute changes and start the project |
| **2** | **Project Definition & Planning** | **Defining ways to achieve success of Smart Autogate Plate System using the scope and objectives.** |
| 2.1 | Scope & Goal Setting | Process of establishing and recording specified project objectives, goals, milestones, tasks, costs, and schedule dates. Goal setting is High-level statement alluding to the potential for new businesses and other advantages as a result of Smart Autogate project's completion. |
| 2.1.1 | Product analysis | Evaluation of features, pricing, availability, quality, appearance, and other factors of the product. |
| 2.1.2 | Alternative’s identification | a process for determining several methods or approaches to completing our project's work like brainstorming. |
| 2.1.3 | Verify Scope | Verify each deliverable by comparing it to the project’s specification |
| 2.1.3.1 | Inspection | To ensure that the scope satisfied the requirements of the stakeholders verify each deliverable by comparing it to the project’s specification involving stakeholders as well |
| 2.1.4 | Control Scope | Monitoring the project's and product's progress, as well as controlling modifications to the scope baseline. |
| 2.1.4.1 | Variance Analysis | An investigation of the discrepancy between planned and actual numbers can be characterized as variance analysis. |
| 2.2 | Budget | an estimate of revenue and expenses for a determined time duration that is usually prepared and re-evaluated on a regular basis. |
| 2.2.1 | Hardware & Software | All the project's software and hardware requirements, such as computers, and PyCharm, storage have been specified. |
| 2.2.2 | Salary | Set sum of money or remuneration that an employer pays to an employee in exchange for work done in project. |
| 2.3 | Communication Plan | A plan that specifies how vital information will be presented to project stakeholders at various stages. |
| 2.4 | Risk Management | Refers to efforts aimed at reducing project risks and, as a result, ensuring that Smart Autogate project is finished on time and within budget while still meeting its objectives. |
| 2.4.1 | Identifying & Analysing risks | Address all project risks, both recognized and undiscovered. |
| 2.4.2 | Develop risk mitigation strategy | Risk mitigation strategies are created with the goal of managing, eliminating, or reducing risk to a manageable level for Smart Autogate System |
| 2.4.3 | Prioritization of risks | The process of selecting which risk should be addressed first |
| 2.4.4 | Set actions to the risks | Treat the risk and monitor it |
| 2.5 | Collect Requirements | To meet the project's objectives, create and collect a list of functional, system, and technical needs and requirements from diverse stakeholders. |
| 2.5.1 | Focus Group | It is a group interview with a limited number of persons who are demographically similar or who share other common characteristics or experiences. |
| 2.5.2 | Facilitated Workshop | A pre-planned collaborative event in which a group of stakeholders and content specialists collaborate to generate, amend, and document a pre-defined deliverable of Smart Autogate System |
| 2.5.3 | Group Creativity Techniques | Brainstorming, Mind mapping |
| 2.5.4 | Group Decision Making Techniques | Making decisions for the welfare of project through brainstorming sessions |
| 2.5.5 | Prototypes | A sample, model, or early release of a product designed to test the concept or process of Smart Autogate System |
| 2.6 | Create WBS | Construct a work breakdown structure. |
| 2.6.1 | Decomposition | Decompose a work breakdown structure into smaller tasks. |
| 2.6.2 | Module distribution & Task Assignment | Assigning responsibilities of team members by asking them to finish specific modules and tasks |
| **3.0** | **Project Launch & Execution** | **Complete the Smart Autogate Using Plate Project's defined objectives & tasks.** |
| 3.1 | Status & Tracking | Keeping track of the Smart Autogate project's tasks to see how it is progressing and compare to the original planned timetable. |
| 3.2 | KPIs | (KPIs) are several measurement methods that indicate how successfully our team are reaching specified targets. Our KPI is project schedule. |
| 3.2.1 | Ensure milestones set are achieved | a marker in the Smart Autogate project that denotes a development change or stage that can be achieved with deadline management |
| 3.3 | Monitoring | Information regarding the progress of project development intervention is collected and analysed in a systematic and ongoing manner. |
| 3.4 | Project Updates | Examine and keep track of the project's progress. |
| 3.4.1 | Project Procedure Updates | Any changes or modification in utilized approach or method should be monitored. |
| 3.5 | Modules Integration | The modules created by individual members are merged |
| 3.5.1 | Debug Integration Errors | Debugging the errors that occurred during integration by team members |
| 3.6 | Documentation & Chart Updates | Keeping records for essential activities and updating WBS other charts. |
| **4.0** | **Project Performance / Monitoring** | **Follow the progress of the Smart Autogate project by tracking, evaluating, and controlling it.** |
| 4.1 | Project Objectives | Revise the objectives of Smart Autogate system again for matching them with the produced outcome |
| 4.2 | Quality Deliverables | Defines the customer's quality requirements, the internal system and product qualities that indicate whether the quality criteria are being met, and the metrics to be used to track the quality levels attained. |
| 4.2.1 | Assessing quality of project | Matching up the product with the functional and non-functional requirements. |
| 4.3 | Project Testing | Test the integrated system to describe the quality of the project. |
| 4.3.1 | System Testing | Testing carried out on fully integrated Smart Autogate system to see if it complies with the system's requirements. |
| 4.3.1.2 | Detect errors | Define the system errors that cause the system to fail to perform its primary function. |
| 4.3.2 | Amendment measures | Define initiatives that must be taken, like if the risk is way too damaging or can be kept because it causes minimal damage |
| 4.3.2.1 | Repair Errors | Fix the detected errors |
| 4.3.3 | System Validation | Smart Autogate system element, a system, a document, a service, a task, a system requirement, etc. is checked for compliance with its purpose and functions using a set of actions. |
| 4.4 | Project Performance | The process of developing, implementing, and managing projects that contribute to an Smart Autogate project performance and strategy. |
| 4.5 | Calculating and Tracking Costs | Calculating the cost of resources utilized for fixing errors and evaluating project performance. |
| **5.0** | **Project Closing** | **Close the Smart Autogate project formally** |
| 5.1 | Formal Acceptance | Since it fulfils all the project's requirements. The Smart Autogate project has received formal approval and acceptance from the stakeholders, |
| 5.2 | Document Closing | All the documents and records have been approved, signed, and then archived. |
| 5.3 | Performance Review and Comparison | a formal evaluation in which a manager assesses team members work performance comparing to baseline product |
| 5.4 | Future Improvement | Our project manager recognizes strengths and flaws, provides comments, and establishes performance goals for the future. |