

Project Planning Phase

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Team ID	LTVIP2025TMID31086
Project Name	calculating family expenses using service now
Maximum Marks	4 Marks

The planning phase serves as the cornerstone of the Family Expense Tracking System project, providing a comprehensive blueprint for building an efficient, scalable, and user-friendly application on the ServiceNow platform. This phase is crucial in translating conceptual goals into structured development actions, ensuring that all technical and functional requirements are clearly defined, strategically prioritized, and logically sequenced.

This stage involves key preparatory steps that set the tone for the entire project lifecycle—from technical environment setup to detailed configuration plans. The goal is to ensure a robust foundation that enables seamless development, streamlined data interaction, and reliable performance of the final product. Every decision made during this phase directly influences the system’s usability, maintainability, and scalability.

1. Instance Setup

The first step in the planning phase is configuring a dedicated ServiceNow developer instance. This environment will serve as the sandbox for designing, testing, and deploying all components of the Family Expense Tracking System. Proper configuration ensures that developers have access to essential modules, appropriate access roles, and administrative privileges required for full-scale customization. Security settings, plugin installations, and version compatibility checks are also conducted during this stage to avoid issues in later phases.

2. Database Architecture

Designing the database is central to managing and organizing the expense data effectively. The planning phase includes creating two core tables:

Family Expenses Table: Captures overall family-level expense categories such as groceries, utilities, education, etc.

Daily Expenses Table: Records granular day-to-day spending by individual family members or categories.

Each table is designed with scalability in mind, allowing the system to handle growing volumes

of data over time. The architecture is documented using ER diagrams and schema maps to ensure a clear understanding of data flow and dependencies.

3. Field Definition and Validation

To guarantee data integrity, each field within the primary tables is carefully defined with appropriate data types (e.g., string, integer, currency, date). Validation rules—such as mandatory fields, range checks, and data format constraints—are embedded at this stage. These validations prevent erroneous or incomplete data entries, ensuring meaningful analysis and reporting down the line.

For example:

Amount fields are configured to only accept positive currency values.

Date fields are validated to reject future dates for expense entries.

4. Relational Mapping

Establishing relationships between the tables is another critical component of the planning phase. A one-to-many relationship is defined between the Family Expenses and Daily Expenses tables. This relational setup enables features such as:

Automatic aggregation of daily spending into the family expense overview.

Cross-referencing expenses by category, member, or date.

This relational architecture allows for efficient querying, reporting, and automation.

5. Business Logic Development

The planning phase also includes drafting business logic rules that will later be implemented as scripts or workflows. These rules automate calculations and enhance system intelligence. Examples include:

Auto-calculating total daily expenses when new entries are added.

Generating alerts when monthly spending exceeds predefined thresholds.

Rolling up daily expenses into weekly or monthly summaries for dashboard displays.

Planning these rules in advance helps avoid redundant scripting and ensures logical consistency across modules.

6. Milestone Planning

To guide development and ensure accountability, clear project milestones are defined and scheduled. Each milestone represents a significant achievement in the development cycle, and dependencies are clearly outlined. Example milestones include:

Instance Setup Completion

Table and Form Configuration Finalization

Business Rule Implementation

Integration Testing and Debugging

User Acceptance Testing (UAT)

Final Deployment

Milestones help monitor progress and manage timelines effectively. They are tracked using Gantt charts or project management tools integrated with ServiceNow.

Conclusion

The Project Planning Phase is essential in ensuring the successful execution of the Family Expense Tracking System. By addressing technical configurations, database structure, field definitions, relational logic, and automation strategies upfront, this phase eliminates ambiguity and reduces risks during development. Through detailed documentation, strategic planning, and milestone tracking, it sets the stage for a high-quality solution that aligns with user needs and platform capabilities.