# Milestone 3: Final Architecture Plan (Design Phase)

**Objective:** The purpose of the Final Architectural Plan (aka Design Specification) is to transform the requirements into complete and detailed system design specifications. The logical model created from the requirements analysis phase is used to develop a physical model of the application. Once the Final Architectural Plan is approved, the coding/development phase begins. A Project Design template can be found in the class resources.

**Deliverable:** Submission of the [Final Plan](#_Final_Architectural_Plan)

Refer to the information below for additional details on each section of the Final Architectural Plan Document.

**Special Note:** Depending on the project, portions of this milestone may not be applicable. In cases like these, work with the instructor to determine the components of the project that may replace this step. The instructor will determine what documentation is needed and how this documentation will be assessed.

Final Architectural Plan Title Page

The Architecture Plan like the Requirements Document and for consistency should contain a cover page, containing at a minimum a project title, author, course number, instructor name, document revision number, and date along with a 3-5 sentence abstract that provides an overview of the project and introduces the reader to the document.

Final Technical Requirements

Provide a listing of the final technical requirements that the system must fulfill. List these requirements and include a brief description. Follow the listing of technical requirements with a listing and explanation of the software and/or hardware that is necessary to meet the requirement.

Design Planning Summary

The design planning summary is an overview of the specific development project, a synopsis of the situation that led to the need (if applicable), and a short description of the issues that the development project is going to solve, as well as a general description of the proposed solution and the rationale for the solution. The Project Proposal and Requirements Document as necessary should be updated to incorporate all prior feedback from the instructor and mentor. The Document History should be updated in the Project Proposal and Requirements Document as necessary with a statement clearly stating what changed.

Overview of Design Concepts

Provide the high-level design of the proposed solution with supporting narrative text. This document should include mock-up screenshots for the proposed user interface screens, pseudocode, or flowcharts that show the logic for the program, as well as the anticipated process flow. The purpose of this document is to allow the stakeholder to approve the concepts before committing resources to the technical design and implementation. If there is no stakeholder, then provide a personal statement and explanation indicating the design concepts are satisfactory.

Detailed Solution Architecture

Provide a detailed overview of the system architecture, including:

1. An overview of how the proposed design fits into the overall project structure.
2. Object and data element definitions, including a description of all objects with UML diagrams. Describe the purpose and characteristics of all data elements.
3. Additional diagrams as needed by your particular system: such as entity-relationship diagrams, workflow diagrams, database schema, and so on.
4. Collaboration diagrams and/or sequence diagrams to show the workflows of components/packages/classes inside the component.
5. Algorithm descriptions where possible
6. Detailed final specifications for all screens, interfaces and integration points, processes, conversion, reports, and any required modification to existing systems
7. Any solution configuration changes that will be required to develop and implement the proposed project, including hardware and software technologies
8. Description of the approach and resources required to assure system security, if relevant.

Keep in mind, the purpose of the detailed solution architecture is to provide sufficient information for a developer to produce the system.

Revision and Signoff Sheet

The revision and signoff sheet is key to having a formalized method of documenting changes. Both developers and clients, where applicable, will need to know "why a change was made." Therefore, provide a template used for documenting changes.

Projects Requirements Document Submission

Look back at what has been done so far in the project and make changes/modify what was done in the past. It is important to continually review the project plan to address issues and oversights that are discovered.