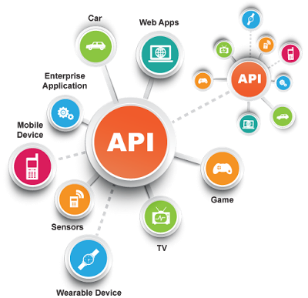
**SE495 Software and Systems Integration**

## Business Process Modeling for a Library Management System

### Project Overview

In this guided project, students will apply the concepts learned in Chapter 5: Business Process Modeling to design and optimize the business processes involved in a Library Management System. The Library Management System will handle common library operations such as book borrowing, returning, reservation, and member management.

### Learning Objectives

Upon completion of this project, students will be able to:

1. Understand the core concepts of business process modeling.
2. Apply BPMN notation and elements to model business processes.
3. Analyze and optimize business processes.
4. Capture integration requirements for software systems.
5. Use tools for business process modeling.

### Project Requirements

1. Students should have a basic understanding of business process modeling concepts and BPMN notation.
2. Students should have access to a business process modeling tool such as Bizagi Modeler, Signavio, or Lucidchart.

### Project Steps

1. **Identify the library management processes**: Identify and list the core library management processes that need to be modeled. Examples include member registration, book borrowing, book returning, reservation, and member management.
2. **Model the processes using BPMN**: For each identified process, create a BPMN diagram using the appropriate notation and elements. Ensure that the diagrams accurately represent the flow of activities, decisions, and actors involved in each process.
3. **Analyze and optimize the processes**: Analyze each process for potential bottlenecks, inefficiencies, or redundancies. Propose optimizations to improve the processes, and update the BPMN diagrams accordingly.
4. **Capture integration requirements**: Identify the integration points between the library management processes and the underlying software system(s). Specify the requirements for these integration points, including data exchange formats, communication protocols, and any necessary APIs.
5. **Document and present your work**: Compile your BPMN diagrams, process optimizations, and integration requirements into a clear and concise report. Present your work to the class, explaining the rationale behind your decisions and the benefits of your proposed optimizations.

### Assessment Criteria

Students will be assessed based on the following criteria:

1. The completeness and accuracy of the BPMN diagrams.
2. The effectiveness of the proposed process optimizations.
3. The clarity and relevance of the integration requirements.
4. The quality and professionalism of the final report and presentation.

### Tips for Success

1. Start by studying real-world examples of library management systems and their processes.
2. Collaborate with your peers to brainstorm ideas and share insights.
3. Use the available resources, such as online BPMN tutorials and the course materials, to ensure you have a solid understanding of BPMN notation and business process modeling best practices.
4. Seek feedback from your instructor and peers throughout the project to ensure you are on the right track.