Project Number: P35

Project Title: Business Process for SMEs Utilizing E-invoicing APIs

Project Clients: Prof. Fethi Rabhi, Muhammad Raheel Raza (FAIC researcher)

Project Specializations: Software development; Cloud computing; Web application development; Mobile application development.

Number of groups: Unlimited

Main contact: Muhammad Raheel Raza

Background:

Australian Government has introduced E-invoicing technology, and many businesses need a system to convert from PDF to XML format. The purpose of this project is to design and implement a comprehensive business process for Small and Medium Enterprises (SMEs) to efficiently manage electronic invoicing (e-invoicing) using Application Programming Interfaces (APIs). The project is specifically PDF -> UBL conversion with validation according to Australian rules. This process will encompass e-invoice creation, validation, and sending processes.
The project goals include:

- Streamline e-invoicing processes for SMEs by leveraging e-invoicing APIs.

- Invoicing processes for SMEs by leveraging e-invoicing APIs.

- Reduce manual intervention and errors associated with traditional invoicing methods.

- Enhance efficiency and accuracy in invoice generation, validation, and transmission.

Requirements and Scope:

- Development of a business process flow for e-invoicing encompassing creation, validation, and transmission stages.

- Integration of e-invoicing APIs into existing SME systems or development of standalone e-invoicing system.

- Documentation of the implemented business process and API integration guidelines for SMEs.

- Design of a front-end application combining all the API services.

- Selection of suitable e-invoicing APIs based on compatibility with SME systems, regulatory compliance, and cost-effectiveness.

- Integration of API authentication mechanisms to ensure secure data transmission.

- Implementation of data encryption and privacy measures to safeguard sensitive invoicing information.

- Testing and validation of the implemented business process and API integrations in a controlled environment before deployment.

- Design of a front-end application, combining all API services.

Required Knowledge and skills:

Software Engineering and software development, Application Programming Interface (API) knowledge.

Expected outcomes/deliverables:

- Fully functional source code.

- An in-depth report documenting the entire project process.

- API documentation provided by the selected e-invoicing service providers, including API endpoints, request/response formats, authentication methods, and error handling procedures.

- Detailed documentation outlining the business process flow, API integration steps, and usage guidelines for SMEs.

Supervision:

Muhammad Raheel Raza

Additional resources:

TBC