

Assignment – 1

Problem Statement:

Build a reference Architecture (architecture only) using at least 3 design patterns for an online Bill payment solution with following components (not limiting to)

- a. Consumers
- b. Utility companies
- c. Bills for monthly consumption
- d. Payment gateway
- e. Receipts over emails

Due Date: Oct 15th, 2022.

- **To be accomplished individually.**
- **Upload your word document to your OneDrive folder.**

Deliverable:

- A word document with the architecture design. **[Max 3 pages including diagrams]**
- You don't have to come up with detailed class diagram (remember the task is not to produce a detailed software design document) or identify technologies that you intend to use. Just need to bridge multiple architectures to come up with a scalable solution. Always remember that an architecture diagram gives only a 30,000 ft view and aims to solve only scalability issues.
- In your document need to justify why you think particular architecture addresses scalability issues.

References:

C4 model is one way to arrive at the final architecture and the following links will provide necessary information. While I haven't explained them in the class, I believe you can easily get on with it as part of self-study.

- <https://c4model.com/>
- <https://structurizr.com/> [design tool and easy to create diagrams]

NOTE:

There are multiple stakeholders (as in consumers and companies) and each may be accessing the service over different types of devices such as tablets, smartphones or laptops.