

Task: Considering all architecture rules you learned this week, you are proposed to design a slack-like system. The result of your work should be a report, which contains:

1. the top-level description of the proposed architecture;
2. the detailed description of each architecture element.

The architecture type for Slack-like system should be *client-server architecture*.

Top-level description of the proposed architecture:

Infrastructure:

1. Linux virtual machine
2. Database
3. Backend Application
4. Client-side applications

Detailed description of each architecture element:

1. Linux virtual machine provides all the environment. It has one Python installed with all the necessary libraries, and a database PostgreSQL.
2. Database: Tables structured according with normal forms to keep data integrity and avoid data redundancy.
3. Backend: Contains business logic and API to interact with the clients, so the inner logic was hidden.
4. Clients: different version of user interface (Web, Mobile and Desktop). They use MVC architecture to divide the related program logic into three interconnected elements.