Project Design Phase-II
Technology Stack (Architecture & Stack)

Date	03 October 2022
Team ID	PNT2022TMID05855
Project Name	Retail Store Stock Inventory Analytics
Maximum Marks	4 Marks

Technical Architecture:

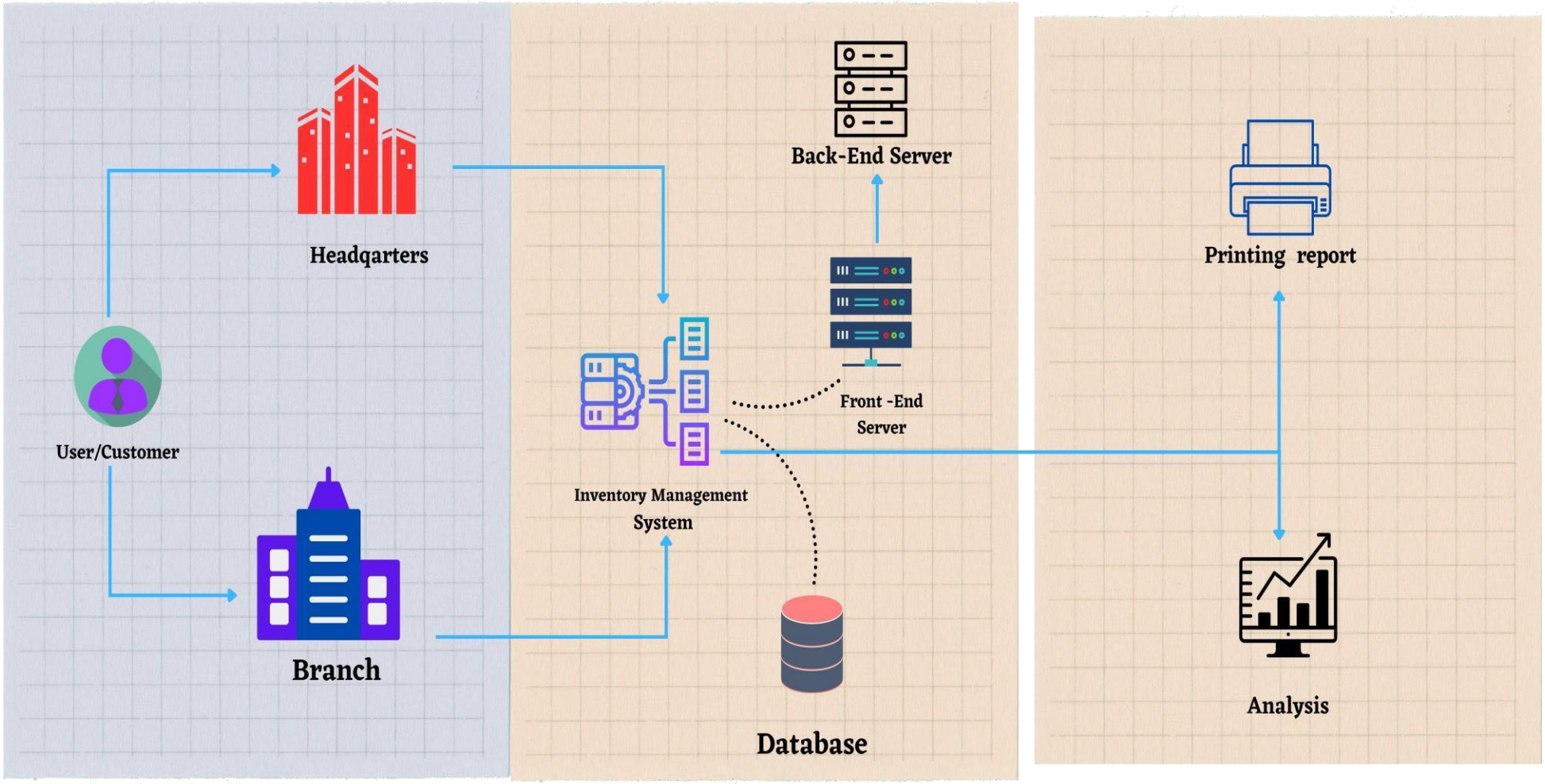
Headqarters
Back-End Server
Printing report
User/Customer
Front -End
Server
Inventory Management
System
Branch
Database
Analysis

Table-1 : Components & Technologies:

S.No	Component	Description	Technology
1.	User Interface	The user interacts with application using Web UI	HTML, CSS, JavaScript
2.	Data Processing	The data from the dataset is pre-processed	IBM Cognos Analytics
3.	Cloud Database	The clean dataset is stored on IBM Cloud	IBM Cloud
4.	Data visualization	The data is visualized into different forms	IBM Cognos Analytics, Python
5.	Prediction	These Algorithm techniques are used to predict the proper way to make the stock in store.	ML algorithms –Logistic Regression, Linear Regression, Random Forest, ABC Techniques.

Table-2: Application Characteristics:

S. No	Characteristics	Description	Technology
1	Open-Source Frameworks	Open-source frameworks used	IBM Cognos Analytics, Python
2	Security Implementations	Request authentication using Encryptions	Encryptions
3	Scalable Architecture	Scalability consists of 3-tiers	Web Server - HTML, CSS, Javascript Application Server - Python Database Server - IBM Cloud
4	Availability	The application is available for cloud users	IBM Cloud Hosting
5	Performance	The user can know how to maintain the inventory to increase profits.	ML algorithms