Architecture Design

E-Commerce Dashboard

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1. Introduction

1.1 What is Architecture design document?

Any software needs the architectural design to represents the design of software. IEEE defines architectural design as “the process of defining a collection of hardware and software components and their interfaces to establish the framework for the development of a computer system.” The software that is built for computer-based systems can exhibit one of these many architectures.

Each style will describe a system category that consists of :

• A set of components (eg: a database, computational modules) that will perform a function required by the system.

• The set of connectors will help in coordination, communication, and cooperation between the components.

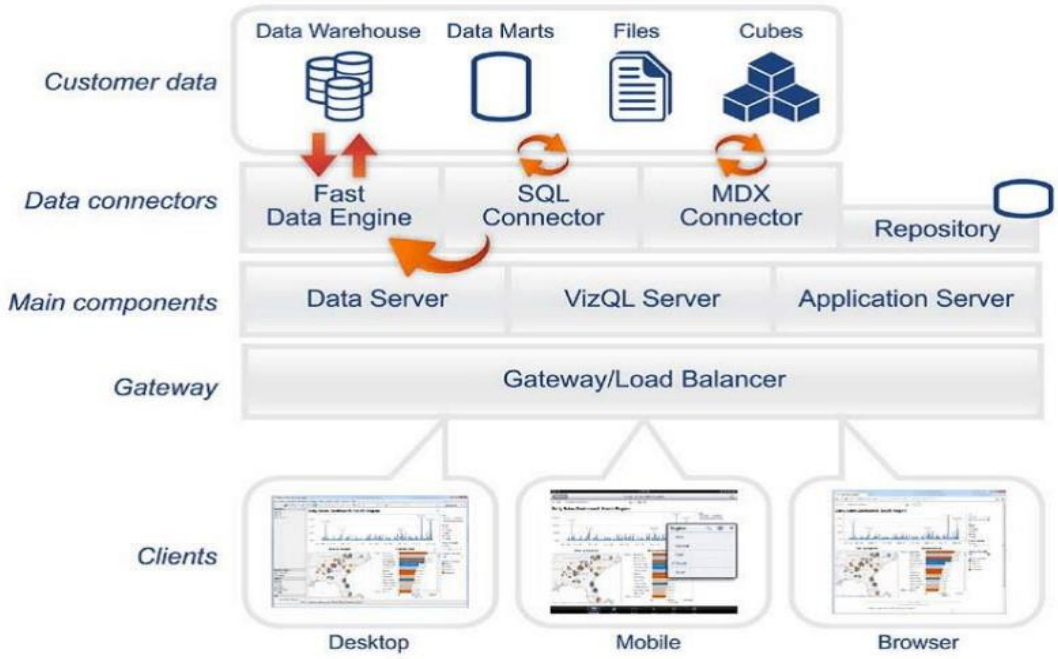
• Conditions that how components can be integrated to form the system.

• Semantic models that help the designer to understand the overall properties of the system.

1.2 Scope

Architecture Design Document (ADD) is an architecture design process that follows a step-by-step refinement process. The process can be used for designing data structures, required software architecture, source code and ultimately, performance algorithms. Overall, the design principles may be defined during requirement analysis and then refined during architectural design work.

2. Architecture



2.1 Excel Spreadsheet

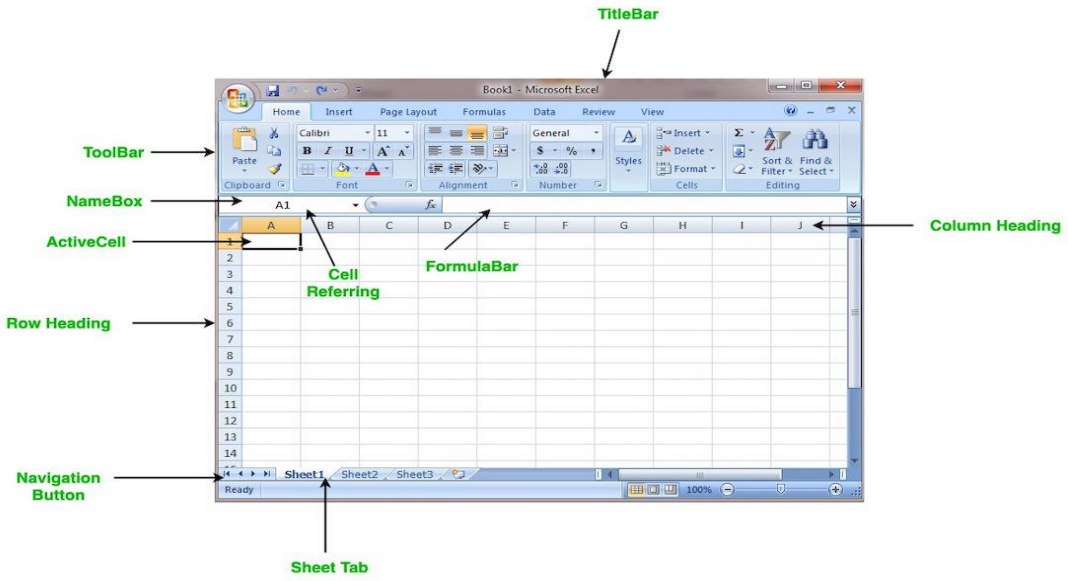
A spreadsheet is a computer application that is designed to add, display, analyze, organize, and manipulate data arranged in rows and columns.

It is the most popular application for accounting, analytics, data presentation, etc. Or in other words, spreadsheets are scalable grid-based files that are used to organize data and perform calculations. People all across the world use spreadsheets to create tables for personal and business usage.

You can also use the tool's features and formulas to help you make sense of your data. You could, for example, track data in a spreadsheet and see sums, differences, multiplication, division, and fill dates automatically, among other things.

Microsoft Excel, Google sheets, Apache open office, LibreOffice, etc are some spreadsheet software. Among all these software, Microsoft Excel is the most commonly used spreadsheet tool and it is available for Windows, macOS, Android, etc.

2.2 Components of Spreadsheet



1. **TitleBar**: The title bar displays the name of the spreadsheet and application.

2. **Toolbar:** It displays all the options or commands available in Excel for use.

3. **NameBox**: It displays the address of the current or active cell.

4. **Formula Bar**: It is used to display the data entered by us in the active cell. Also, this bar is used to apply formulas to the data of the spreadsheet.

5. **Column Headings**: Every excel spreadsheet contains 256 columns and each column present in the spreadsheet is named by letters or a combination of letters.

6. **Row Headings**: Every excel spreadsheet contains 65,536 rows and each row present in the spreadsheet is named by a number.

7. **Cell**: In a spreadsheet, everything like a numeric value, functions, expressions, etc., is recorded in the cell. Or we can say that an intersection of rows and columns is known as a cell. Every cell has its own name or address according to its column and rows and when the cursor is present on the first cell then that cell is known as an active cell.

8. **Cell referring**: A cell reference, also known as a cell address, is a way for describing a cell on a worksheet that combines a column letter and a row number. We can refer to any cell on the worksheet using cell references (in excel formulae). As shown in the above image the cell in column A and row 1 is referred to as A1. Such notations can be used in any formula or to duplicate the value of one cell to another (by using = A1).

9. **Navigation buttons**: A spreadsheet contains first, previous, next, and last navigation buttons. These buttons are used to move from one worksheet to another workbook.

10. **Sheet tabs**: As we know that a workbook is a collection of worksheets. So this tab contains all the worksheets present in the workbook, by default it contains three worksheets but you can add more according to your requirement.

3. Deployment

Excel is used to build reports and dashboard.