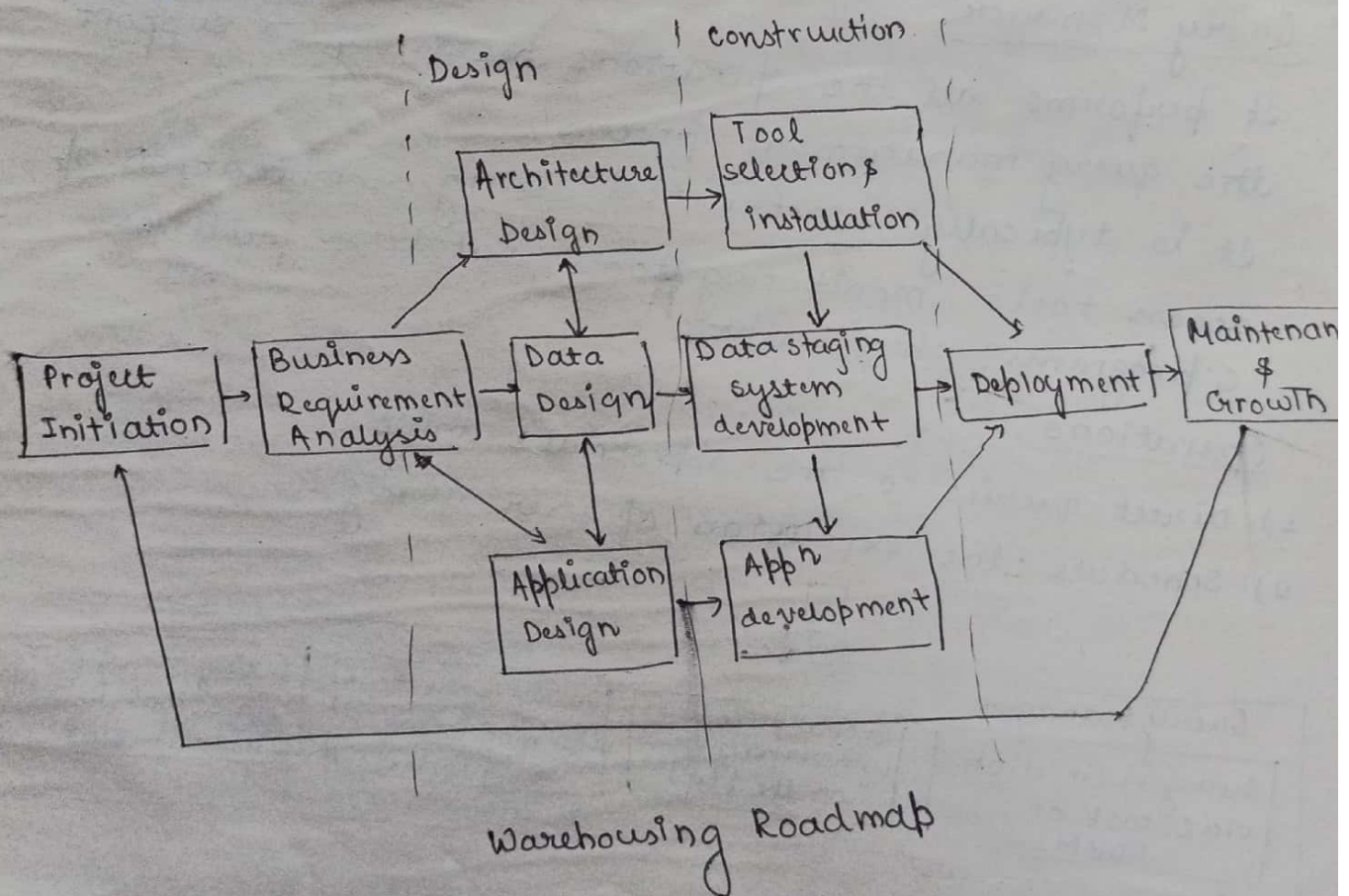# Warehouse Planning & Implementation

The key steps in developing a data warehouse
can be summarised as follows:

1. Project initiation
2. Requirements Analysis
3. Design (architecture, databases & app^n)
4. Construction (selecting & installing tools, developing data feeds & building reports)
5. Deployment (release & training).
6. Maintenance

Warehousing Roadmap

1) Project Initiation

No DW project should commence without:
- a clear statement of business objectives & scope
- a sound business case, including measurable benefits.
- an outline project plan,
- high level executive backing

→ A small team is usually set up to prepare & present a suitable project initiation document.

→ This is normally a joint effort b/w business and IT managers.

Requirement Analysis

→ It involves interview potential user to find out what they want.

→ Interviewing info. system specialist to find out what data are available.

→ Analysing the requirements those are feasible

→ Running facilitated workshops that bring representative users and IT staff together to build consensus about what is needed, what is feasible & what to start

Design

→ The goal of design process is to define the warehouse components that will need to be built.

Architecture Design

→ how the components will work together

→ where they are located

→ who uses them; who will build & maintain them.

Data Design

This system determines the structure of the primary data stores used in the warehouse environment based on the outcome of the requirement analysis.

Application Design

It describe the reports & analysis required by a particular group of user and usually specifies:

→ a no. of template report layouts;
→ how & when these reports will be delivered to users.
→ functional requirement

Construction

Warehouse components are usually developed iteratively & in parallel that said, the most efficient sequence to begin construction is as follows:

1. Tool selection and installation
   → Extract transform load (ETL) tool.
   → database for the warehouse.

2. Data staging system
   → Create target tables in the central warehouse database.
   → Create & populate any data marts.
   → Document the whole process.
   → Create a provisional set of aggregate.
   → Automate all regular procedures
   → write validation exception procedures.

3. Application Development
   Once a sample has been loaded this step begins :-

   → It involves users in the development of reports & ananlytic appn preferabley through prototyping, but at least by

asking them to carry out acceptance testing.
- Modern business intelligence do not require tools.

Deployment
It is assumed that first version can be rolled out
in a week. A well training & planning needs to
be covered.

It includes
i) Installing & configuring
ii) Implementing security measures.
iii) Providing more advanced training

Maintenance
The most important activities are :-

i) Training new staff
ii) Monitoring the realisation of expected benefits
iii) Purging demand data (freeing space).
iv) Providing ongoing support to users.
v) Maintaining both feeds & meta data.