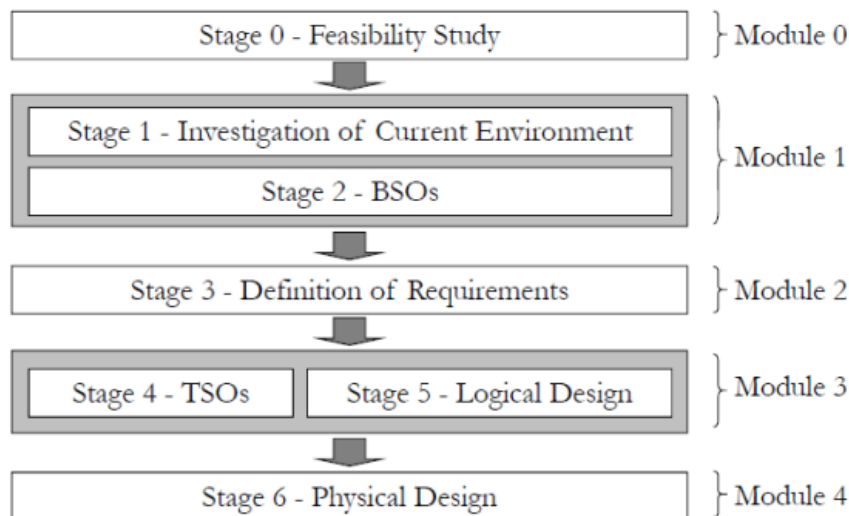


## 23<sup>rd</sup> of January 2023 online lesson

### Framework

SSADM has a framework/skeleton. We have to do all the analysis and design things within this frame.

In this framework, 5 modules in SSADM are broken into 7 stages.



**Stage 0 (Feasibility study)** - Check whether the project is feasible or not?

**Stage 1 (Investigation of current environment)** - Uncover/identify requirements /problems of the current system (manual/computerize)

**Stage 2 (BSOs)** - There are alternative solutions to satisfy those requirements (mandatory/essential and not essential/nice to have). All solutions satisfy mandatory requirements. Client has to select one solution out of those alternative solutions and Analyst can explain the advantages & disadvantages.

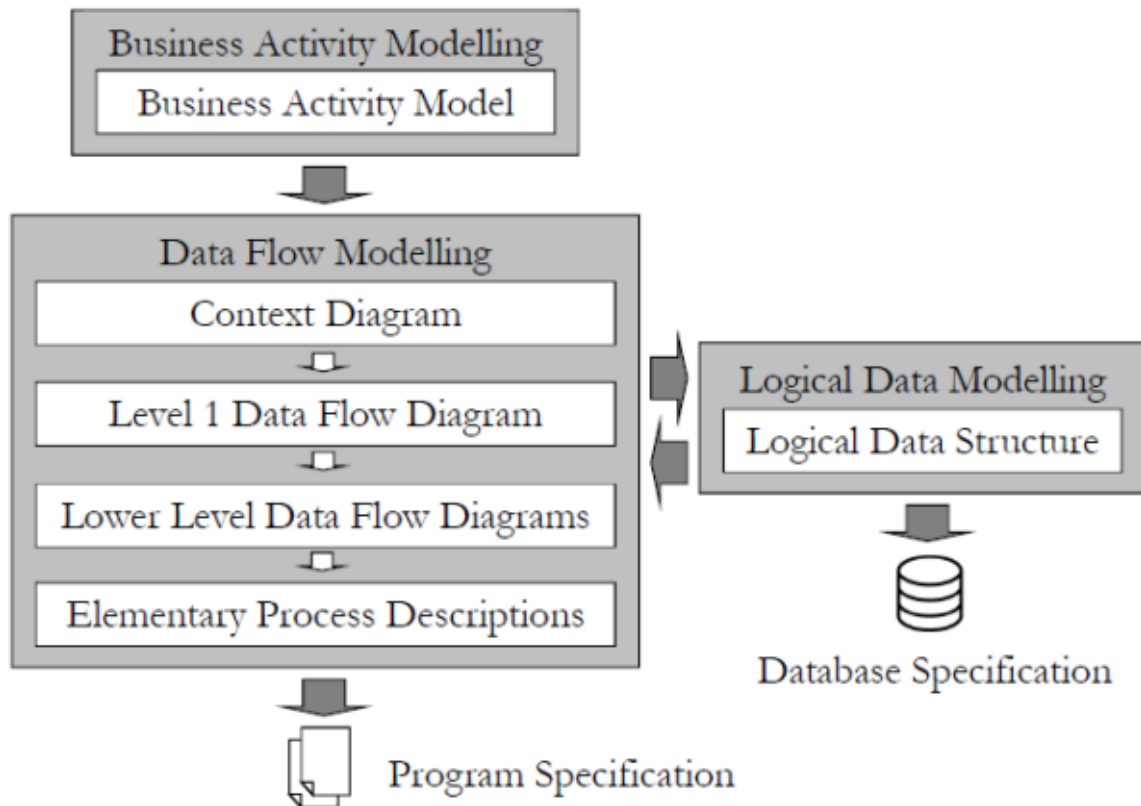
**Stage 3 (Definition of Requirements)** – Defining the requirements for the selected solution. (SRS-System Requirement Specification)

**Stage 4 (TSOS)** – Evaluate the technical system options. Find out what are the alternative technical options to transform to the physical design.

**Stage 5 (Logical Design)** – Design the future system logically without considering the technical constraints.

**Stage 6 (Physical Design)** – Transform the logical design into the physical design according to the selected technical option.

#### Techniques Used for SSADM



## Benefits of SSADM

- ❑ More focus on analysis and design
- ❑ Better quality system specifications
- ❑ System documentation as a byproduct
- ❑ Effective communication & user involvement
- ❑ Flexible continuity when staff changes
- ❑ Improved management control
- ❑ Computer-based support
- ❑ Cost-effective and user acceptable systems

## Case Study

Bookland is a book store that specializes in selling rare books, which are usually not available from other sources. As a practice, Bookland maintains just a one copy of any book at a time due to the higher price of rare books.

Typically, a customer makes a **book enquiry** over the phone from the **Sales Assistant** at Bookland. She then goes through **book details** in the **Inventory** file to check whether such a book is in their stock. If the details of the book is found in the Inventory file, the Sales Assistant then refers to the **Hold-on Requests** tray to make sure that the **book status** is 'available' and makes a **reply to the enquiry**. If the book status is 'available' and the **customer** wishes to reserve the book, she then takes customer's **personal details** and places a **hold-on request** against that book in the Hold-on Requests tray making the book no longer available.

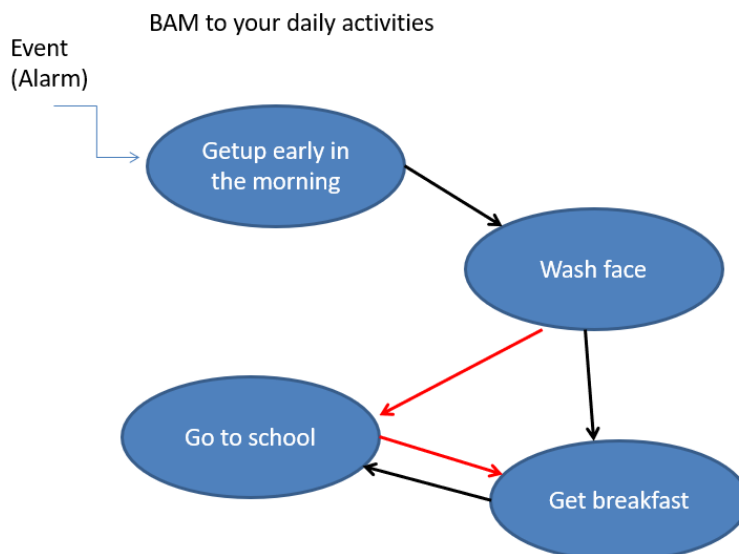
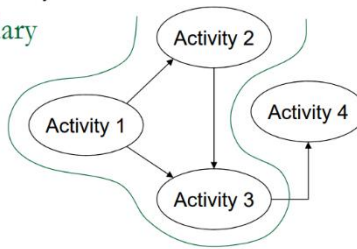
When the customer comes to make the payment and collect the book, the **Cashier** at Bookland refers to the Hold-on Requests tray and finds the relevant hold-on request made by the customer. If there is a valid hold-on request, she then accepts the **payment** from the customer, issues a **payment receipt** to the customer and finalizes the sale. The customer is then allowed to take away the book. The Cashier also files the **copy of the payment receipt** in the **Sales** file, uses it at the end of the day to compile a **sales report** and sends it to the **Owner** of the Bookland. After every sale, the Cashier updates the book details in the Inventory file and keeps the stock up to date. When the Owner supplies books to Bookland, he sends **details of books** to Cashier and the Cashier adds them one by one to the Inventory file.

## Business Activity Modeling

- ❑ A start-off technique for understanding **what's** going on in the system under investigation
- ❑ Shows **business activities** that the actors in the system's environment do and their associations
  - ❑ Event
  - ❑ Action
  - ❑ Activity
- ❑ Helps to identify the scope of the project and to get it confirmed with the client

## Steps of drawing BAM

- ❑ Identify business activities carried out in the system's environment
- ❑ Represent them graphically
- ❑ Link activities in the order they occur
- ❑ Define the **system's boundary** by grouping data dependent activities



Consider the Bookland Book store scenario given above

## BAM

- Identify the actors and their Activities

Actor	Activities
Sales Assistant	<ul style="list-style-type: none"><li>Receive customer enquiry</li><li>Refer book details</li><li>Refer hold – on requests</li><li>Check book status</li><li>Makes a reply to enquiry</li><li>Receive personal details</li><li>Place a hold-on request</li></ul>
Cashier	<ul style="list-style-type: none"><li>Refer the hold-on requests</li><li>Accept payment</li><li>Prepare payment receipt</li><li>Issue a payment receipt</li><li>Files copy of the payment receipt</li><li>Prepare sales report</li><li>Send sales report to the owner</li><li>Update the inventory</li><li>Receive new book detail</li></ul>

