Vivekanand Education Society's Institute of Technology
Department of Computer Engineering

Subject: - Software Engineering Lab

Class: T.E. (D12)   Semester: VI   Div: B

Roll No. **04**	Name:
	GUNJAN BHAWSINGHKA

Exp No. 01	Title: Prepare detailed statement of problem for the selected /allocated mini project and identify suitable process model for the same with justification.

DOP:	08/02/2021	DOS:	15/02/2021

GRADE:		LAB OUTCOMES: LO1	

EXPERIMENT NO. 01

AIM: Prepare detailed statement of problem for the selected / allotted mini project and identify suitable process model for the same with justification.

PROJECT NAME: GYM MANAGEMENT SYSTEM

TEAM MEMBERS: Gunjan Bhawsinghka(4)
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PROBLEM STATEMENT:
This project is designed to facilitate a gymming and fitness center to automate its operations of keeping records and store them in the form of a large and user friendly database further facilitating easy access to the personnel.
This system will automate the manual processes which were in existence till now like: manual process of registration, manual setting of workouts and training programs, manual transaction, manual encoding of attendance, manual inventory of equipment and lastly the generation of reports.
Gym Management System provides a system which handles the personal information of the customers of the gym with utmost care and ensures a proper environment throughout their tenure at our GYM.

OBJECTIVE:
- Automating the existing system.
- Reducing time taken to enter client and staff data.
- Making the client data easily accessible.
- Speeding up operations like easy payment options.
- To centralize the management of the gym and fitness center.
- Reduce data loss in the manual system already in place.
- Reduce the cost of maintenance of the gym and data storage and reduce the space occupied by the files being used.
- Make data retrieval easy and reduce time wasted when manually searching for data.
- It also helps the users in reducing the carbon footprint as the amount of paper used in the company reduces.
- Reduce data redundancy. Redundancy is the repetition of similar data in the system. Redundancy occurs when data is updated so there occurs more than one copy of data I which consumes a lot of space.
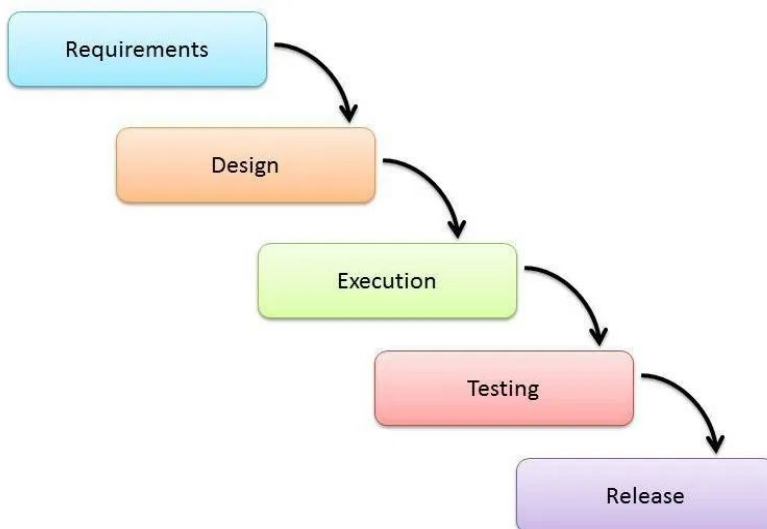
USERS:
- Admin(Administrator)
- Trainer
- Member

FUNCTIONALITY:

There will be a common login/registration page for all users, after successful login/registration there will be different permissions set for all users according to them they can perform functions which are listed below:

- For Admin
  After successful login, they can manage the gym by managing the following : gym batches, facilities, packages, trainers, payments, users and all the operations of the entire gym management system. Admin has the privilege to access anyone's information.
- For Trainer
  After successful login,they can create diet charts of the members, add workout plans, and view the members.
- For Member
  They are either going to register or already registered through the online system. After successful login, they can apply for the memberships, view workouts and make payments. They even have the options like their attendance display, fee payment, change batch/trainer request etc. Also,Members can review the trainer and the diet plans.

PROCESS MODEL: WATERFALL MODEL

According to the nature of our project and requirements, WATERFALL MODEL is the most suitable process model. We are using waterfall model as we are clear with the requirements of end users, i.e. managing shifts, view workouts, etc.

- Requirements are very well documented, clear and fixed.
- Product definition is stable.
- Technology is understood and is not dynamic.
- Phases are processed and completed one at a time.
- Easy to arrange tasks.
- There are no ambiguous requirements.
- Ample resources with required expertise are available to support the product.
- The project is short.
- Each phase must be completed before the next phases can begin and there is no overlapping in the phases.
- Client is certain that no new functionalities will be added in it.

REFERENCE:
https://melsatar.blog/2012/03/15/software-development-life-cycle-models-and-methodologies/