



Sri Lanka Institute of Information Technology

**Laboratory Management System**

Project Report

Application Framework Project 2018 Submitted by:

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# Introduction

This project report is based on the developed laboratory Management system. This System provides the environment for administrative staff to handle the the lab orders and define available laboratory facilities and test facilities of the organization. To achieve these abilities, the system has been implemented using node js (as the back end technology), react js (as the front end technology) and Mongo DB as the database. Git hub has been used to share the developed system between group members during the process of implementation.

1. React JS Front End Application
2. Node JS Back End Application
3. Mongo DB Database

## Business Objective

- To provide quick, reliable, quality and error free service by making use of high end technology to ease the laboratory management.
- To help administration in efficient management of the organization very smoothly by achieving high competency.
- To define available laboratories, categories sub categories of them as well as the available test categories.

## System Objectives

- User Friendly
- Generate information which helps to make relevant laboratory orders
- Reduce manual work
- Security

# Functional Requirements

- Add, view Lab requests

Based on the available laboratory and test facilities user can make lab requests to the system by providing relevant details such as patient details and needed test details. User can view all the tests done by the relevant patient and can update the test results which have not been collected yet. Finally user can view the lab report which include all the test relevant details of the give patient.

- Handle lab tests

Admin can manage test details like update and delete test details, admin also can search test details using test id, admin can add, delete, update and search test categories, also manage sub categories like add, delete, update and search using the sub category id, validation also done.

- Manage sample centers

First user can add sample center types to the system. Also user can update and delete these sample center types. Once center type adds the system it will display the table below. Then user can add sample centers to a relevant sample center type. User can delete these sample centers any time.

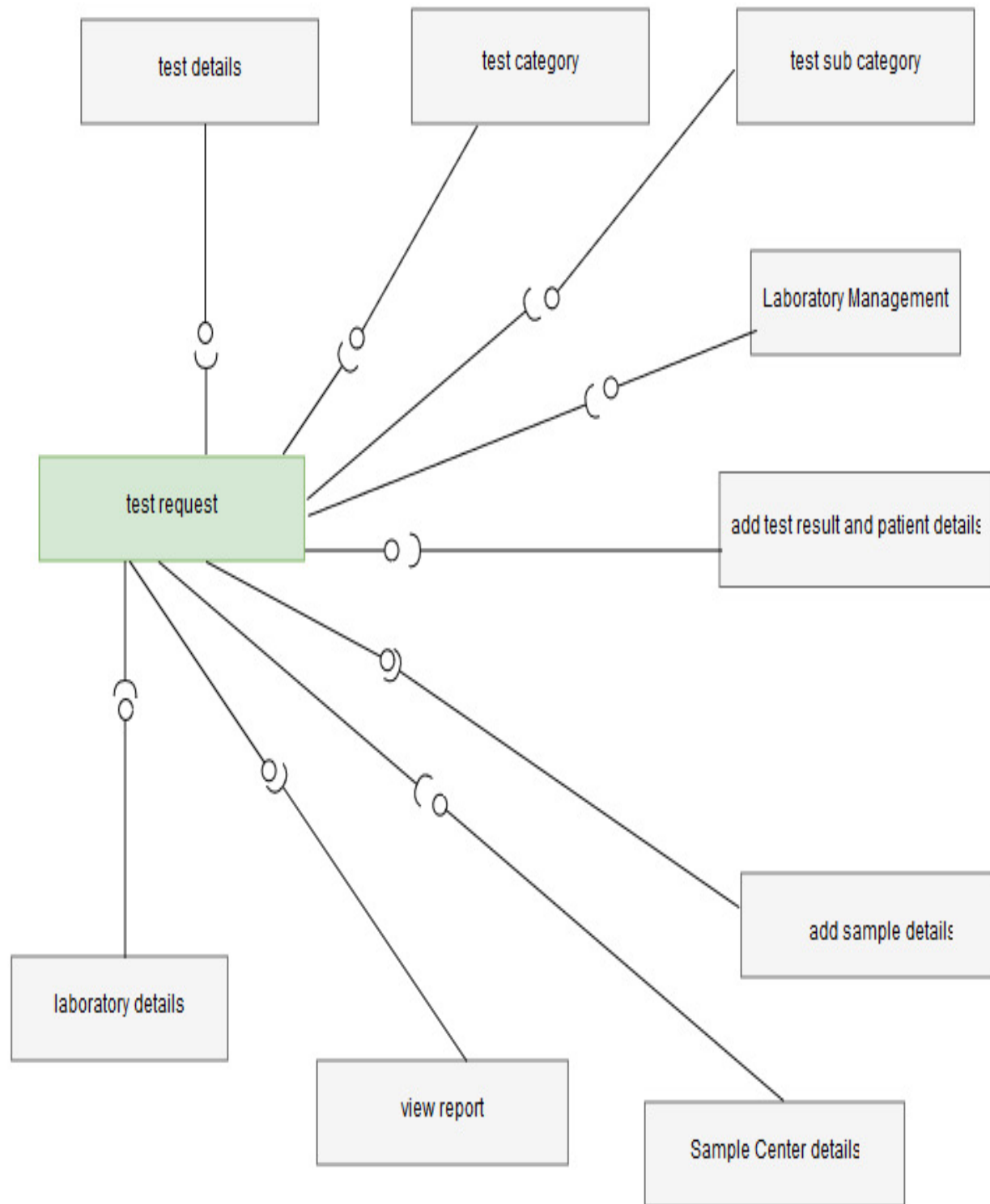
- Add test names

Based on available laboratories, lab test categories and lab test sub categories user can add a test name to an above combination. Also user can update or delete these test names.

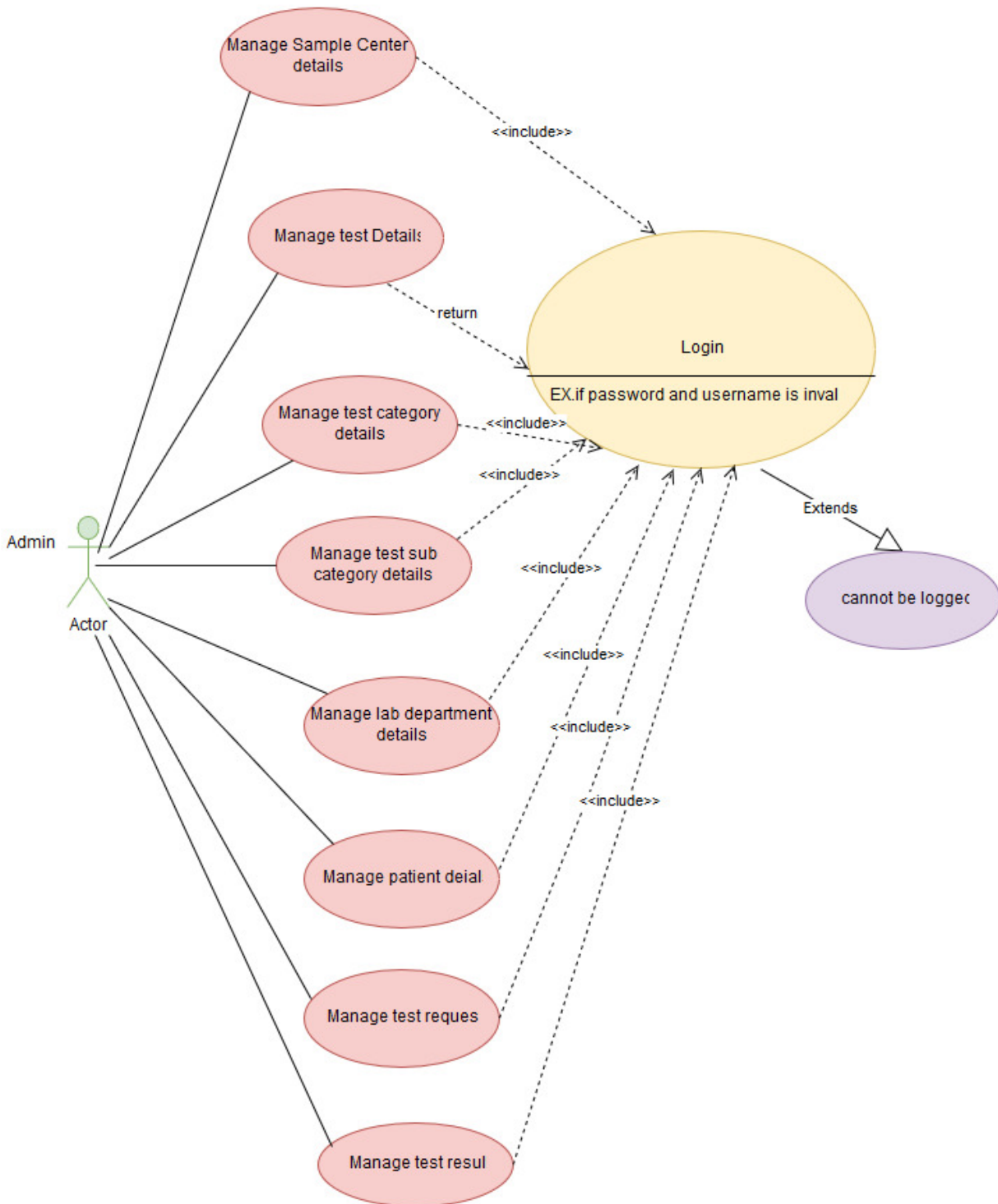
- Manage Laboratories

Administrative staff can add new update delete new laboratories new laboratory types and new laboratory departments which will be available for uses to provide their service

# High Level Diagram



# Use Case Diagram





# Link to Git hub repository

- <https://github.com/sachuu96/AfFinalProject>