Functional Requirements
To-Do Application

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CSC 4996 Senior Project

Introduction

This document is an overview and outline of the functional and nonfunctional requirements of the ToDo Application Project. The contents contain; system architecture diagrams data flow diagram, sequence diagrams, and a database diagram along with the functional, nonfunctional requirements, use cases, and test cases.

Functional Requirements

- The application should be able to add a new task to the database
- The application should be able to view tasks that are already saved in the database
- The application should be able to delete existing tasks that are in the database

Nonfunctional Requirements

- The application should be able to execute adding, viewing, and deleting tasks within two seconds.
- The application should be able to save all tasks on a database even if the web browser is closed.
- The application should be able to be used at all times of the day.
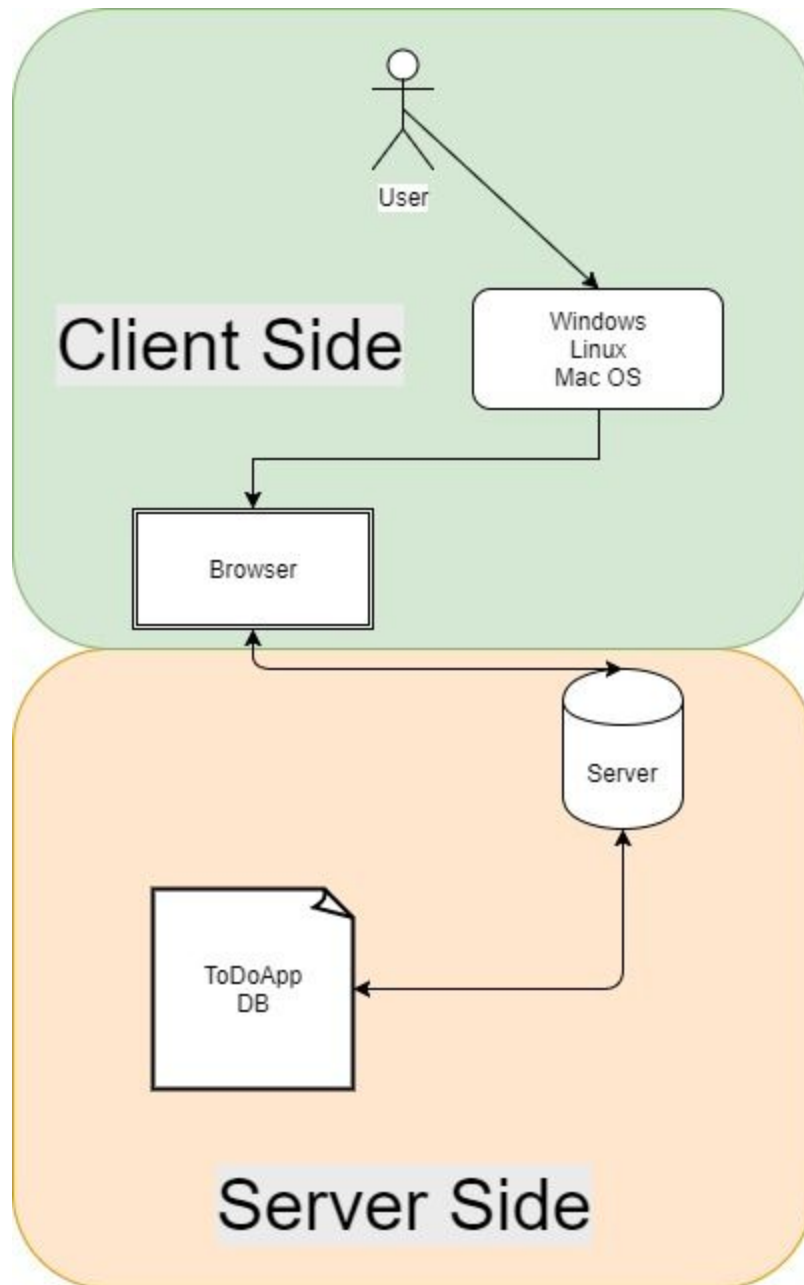
Use Cases

ID:	UC-1
Title:	Add Task
Description:	User wants to add a task to the database
Primary Actor:	User
Preconditions:	Browser and servers must be running
Postconditions:	Must be running latest version of DB
Success Flow:	1. User inputs title, description, and date into fields 2. User clicks save button 3. Task is saved into database 4. Message is returned on success
Error Flow:	1. User inputs, title, description, and date into fields 2. User clicks save button 3. Task is not saved into database 4. NO message is returned

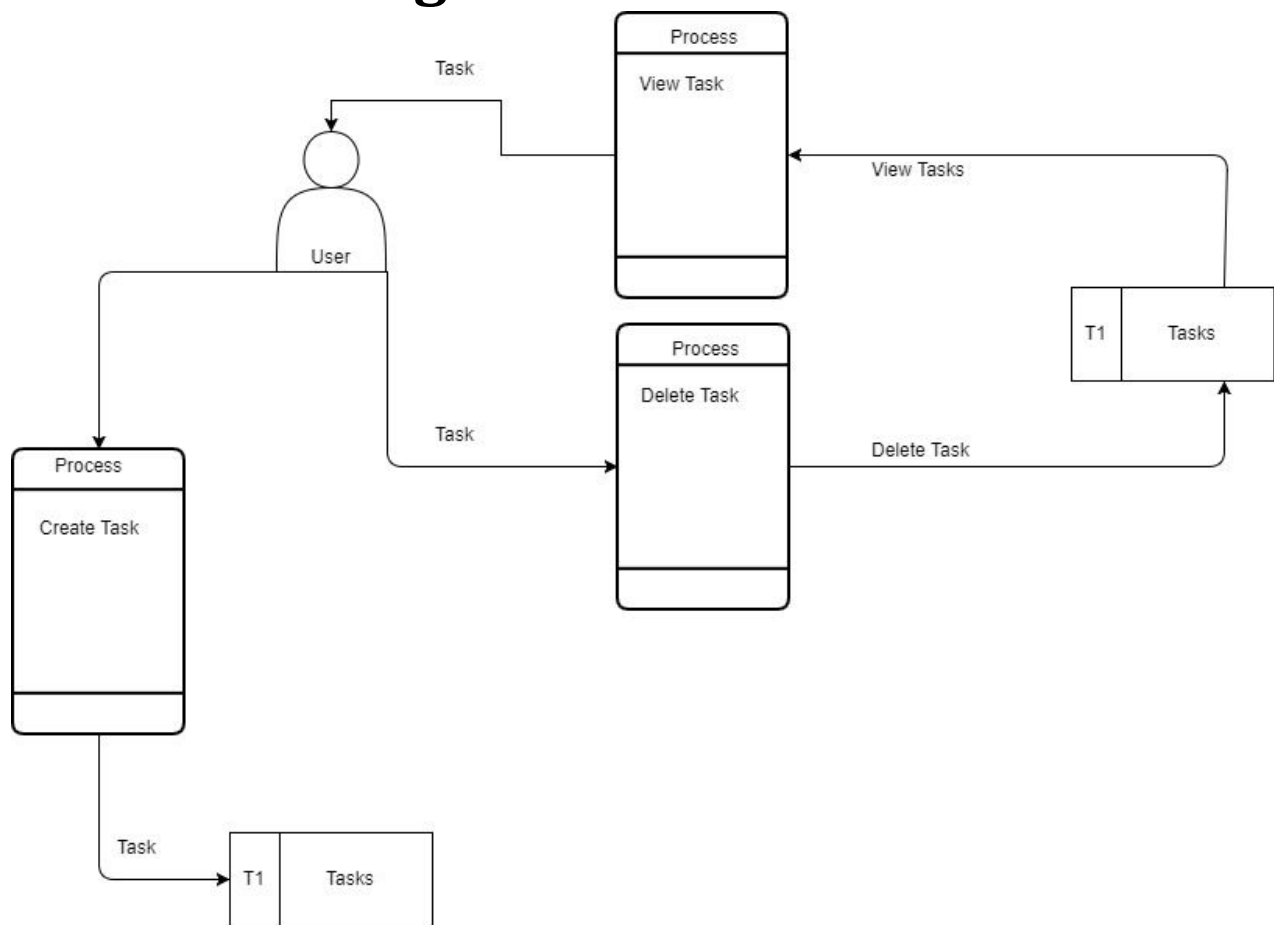| ID:	UC-2
Title:	DeleteTask
Description:	User wants to delete a task to the database
Primary Actor:	User
Preconditions:	Browser and servers must be running
Postconditions:	Must be running latest version of DB
Success Flow:	1. User clicks delete button of corresponding task they want to delete 2. Tasks deletes from database 3. User no longer can see the tasks

Error Flow:	1. User clicks delete button of correspond task they want to delete 2. Task is not deleted from database 3. User can still see task in list

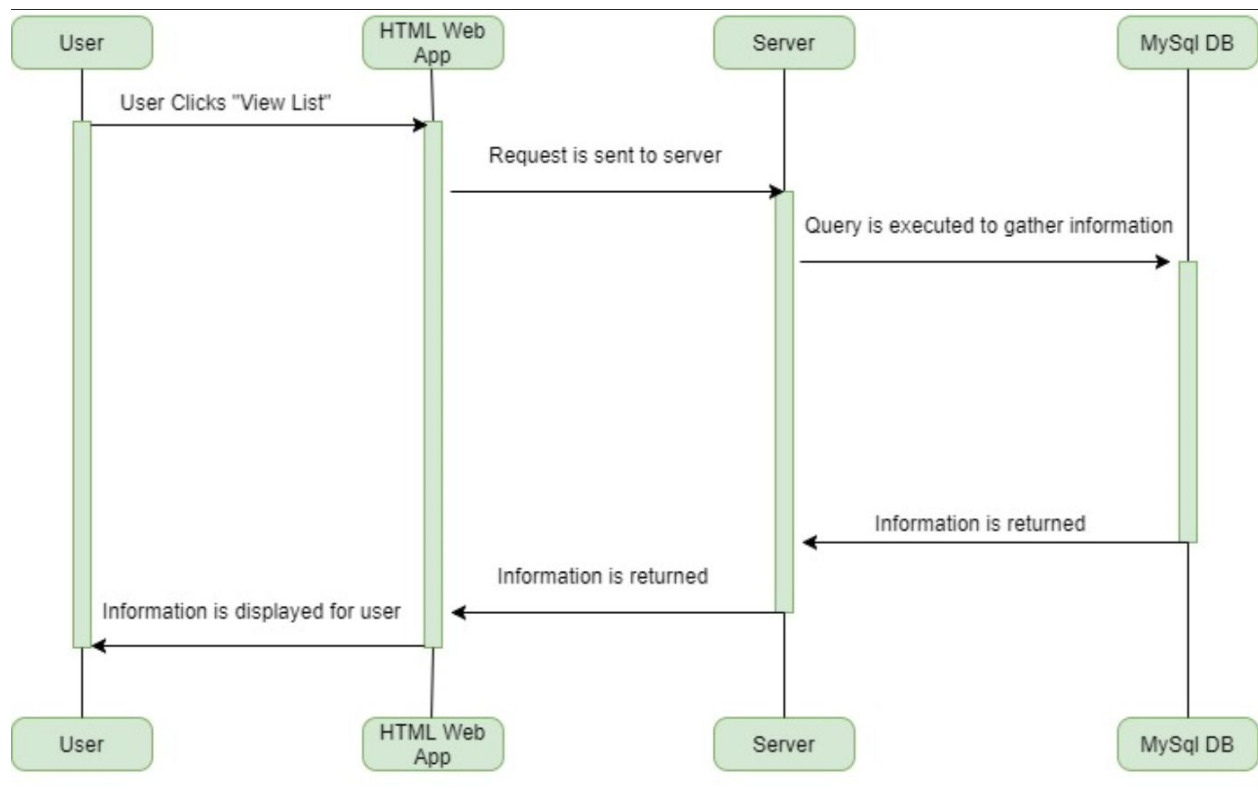|	
ID:	UC-3
Title:	View Task
Description:	User wants to view a task to the database
Primary Actor:	User
Preconditions:	Browser and servers must be running
Postconditions:	Must be running latest version of DB
Success Flow:	1. User clicks on view list link 2. Database returns list of tasks
Error Flow:	1. User clicks on view list link 2. Database does not return list of tasks

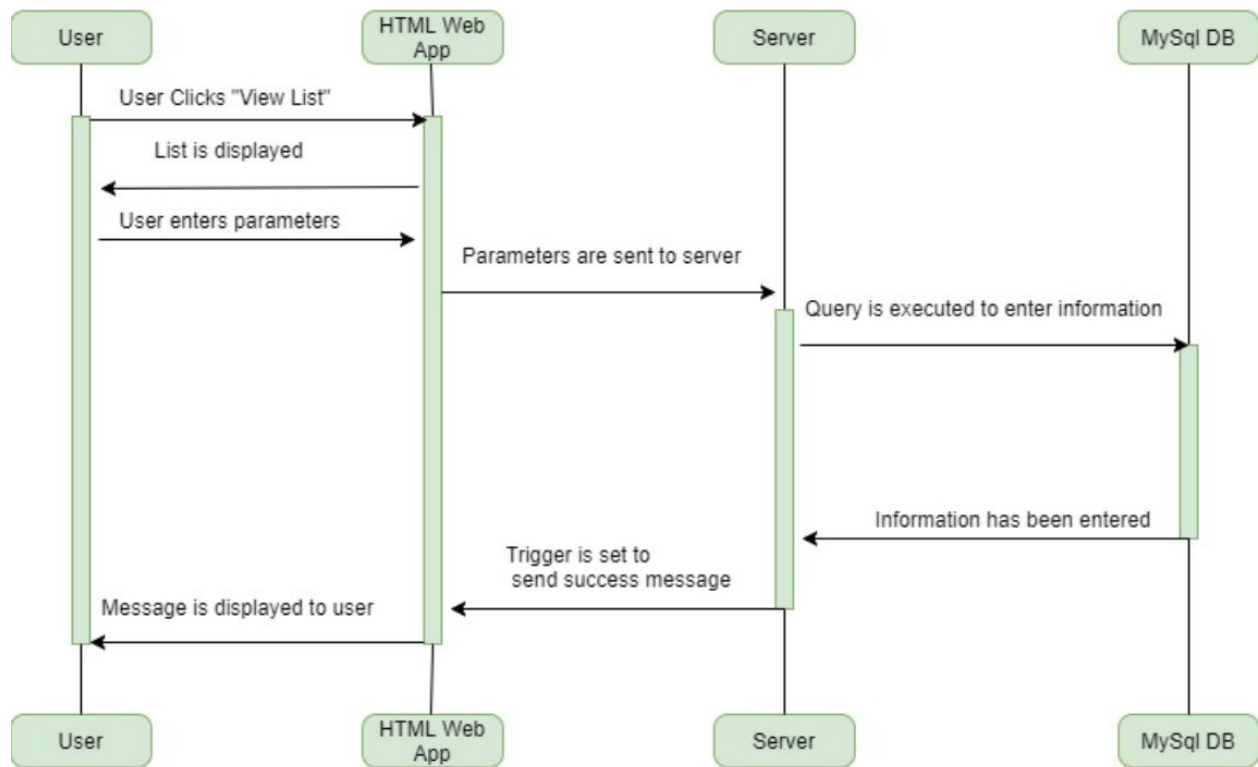# System Architecture Diagram

Data Flow Diagram
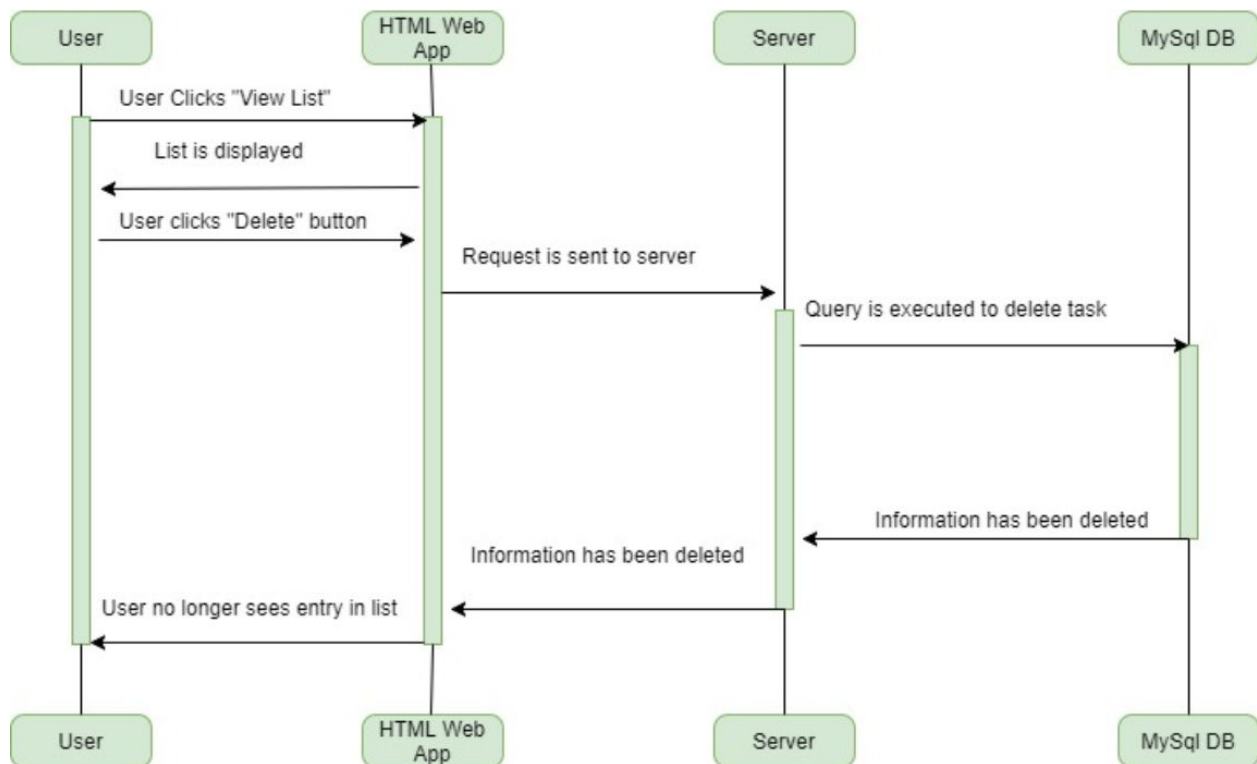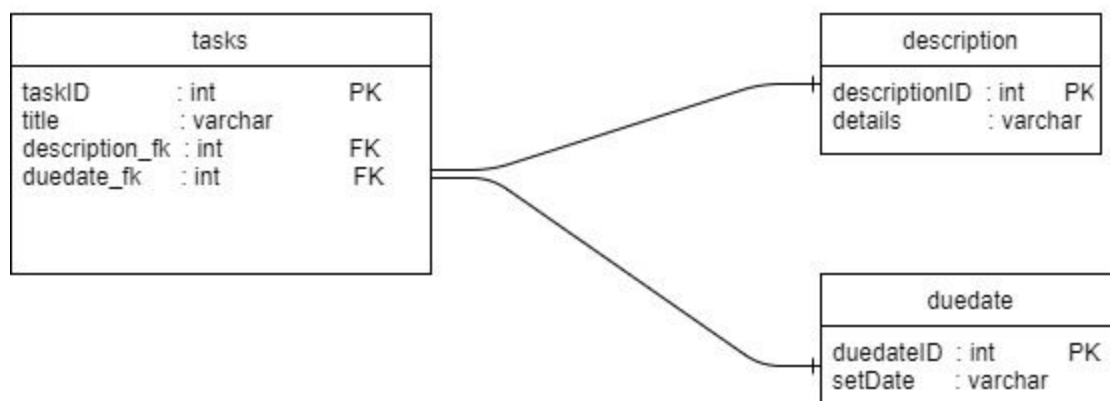
Sequence Diagrams

View Tasks

User	HTML Web App	Server	MySql DB

User Clicks "View List"

Request is sent to server

Query is executed to gather information

Information is returned

Information is returned

Information is displayed for user

Create Tasks

Delete Tasks

Database Diagram

Test Cases

ID:	TC-1
Title:	Add Task
Description:	Developer tests the "save" button
Primary Actor:	Developer
Preconditions:	Browser and servers must be running
Postconditions:	Must be running latest version of DB
Test Procedure:	1. Enter data into appropriate fields 2. Click save button to enter information into database 3. Information is saved
Test Data:	Task Title: Test Description: Testing Due Date: 09/26/2017
Expected Results:	Test will be saved as the Task Title, Testing will be saved as the description, and 09/26/2017 will be saved as the Due Date inside the database.
Actual Results:	Everything was saved correctly into the database.
Status	Success
Date:	09/05/2017
Executed By:	Richard Lin

ID:	TC-2
Title:	DeleteTask
Description:	Developer tests the "delete" link
Primary Actor:	Developer

Preconditions:	Browser and servers must be running
Postconditions:	Must be running latest version of DB
Test Procedure:	1. Developer finds task that he/she wants to delete 2. Developer clicks on the delete link next to the corresponding task
Test Data:	Task Title: Test Description: Testing Due Date: 09/26/2017
Expected Results:	Test will be saved as the Task Title, Testing will be saved as the description, and 09/26/2017 will be deleted from the database
Actual Results:	Everything was saved correctly into the database.
Status	Success
Date:	09/05/2017
Executed By:	Richard Lin

ID:	TC-3
Title:	View Task
Description:	Developer tests the "View List" link in the index page
Primary Actor:	Developer
Preconditions:	Browser and servers must be running
Postconditions:	Must be running latest version of DB
Test Procedure:	1. Developer will click on the view list button on the index page
Test Data:	N/A
Expected Results:	The developer will be redirected to the view page that contains a list of the tasks
Actual Results:	Everything was saved correctly into the database.

Status	Success
Date:	09/05/2017
Executed By:	Richard Lin