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B.Tech Semester - VI

Subject: (CE-619) Service Oriented Computing

Project Title: Note Service

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CERTIFICATE

This is to certify that the project entitled “Note Service” is a bonafide report of work carried out by

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Of the Department of Computer Engineering, Semester VI, under the guidance and supervision for the subject Service Oriented Computing. They were involved in the Project during the academic year 2019-2020.

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Abstract

Note Service is a host independent WCF service used for managing notes for the user. Application is designed in such a way that a user can manage notes on different topics easily.

It helps student to create online notes when taking an e-course. It helps professionals to create a remainder for a meeting or to notes down points in a meeting. Even it is very helpful in day to day life for creating or storing list like a grocery list or their shopping list etc.

Introduction

Purpose

This Service is for revolutionizing the way we store our notes. Normally peoples tend to store their notes on a piece of paper, which more often get lost or either impractical to carry with us everywhere (like a book)

This Application gives you a new way of storing notes and accessing them from any place.

Technology Used:

- ☐ WCF Service

Platform Used:

- ☐ Windows 10

Tools Used:

- ☐ Microsoft Visual Studio Community 2019
- ☐ Git as VCS(Version Control System)

Software Requirement Specification for Farmers Buddy

❖ List of Users:

- 1) End- User

❖ Functional Requirements

R1. Manage Notes

R1.1 Create a Note

Description: User can create a new note

Input: Username, Heading/Title for a note and body for a note

Output: Message is shown.

R1.2 Delete a Note

Description: User can delete a new note

Input: Username, and note's id

Output: Message is shown.

R1.3 Update Note's title

Description: User can update title/heading of the existing note

Input: Username, new heading/title for a note and note's id

Output: Message is shown.

R1.4 Update Note's Body

Description: User can update content of the existing note

Input: Username, new body/content for a note and note's id

Output: Message is shown.

R.1.5 Fetch all Notes

Description: All the notes of the user will be displayed

Input: Username

Output: list of notes is shown.

R.1.6 Fetch a Note

Description: A single Note is displayed based on input

Input: Username, Note's id

Output: note is shown.

R2. Login

Input: Username

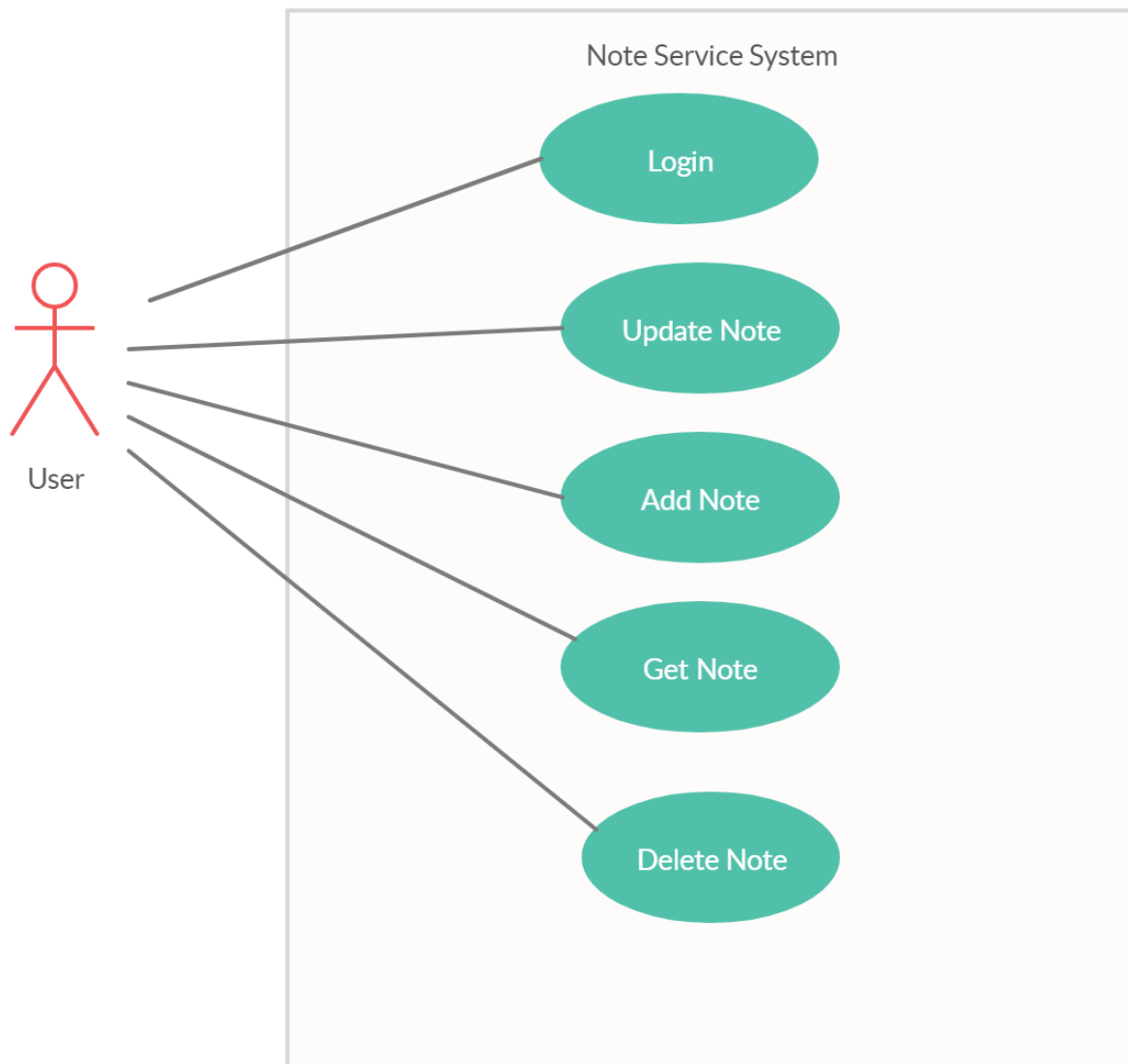
Output: All the notes related to the username is displayed

❖ Non-functional Requirements:

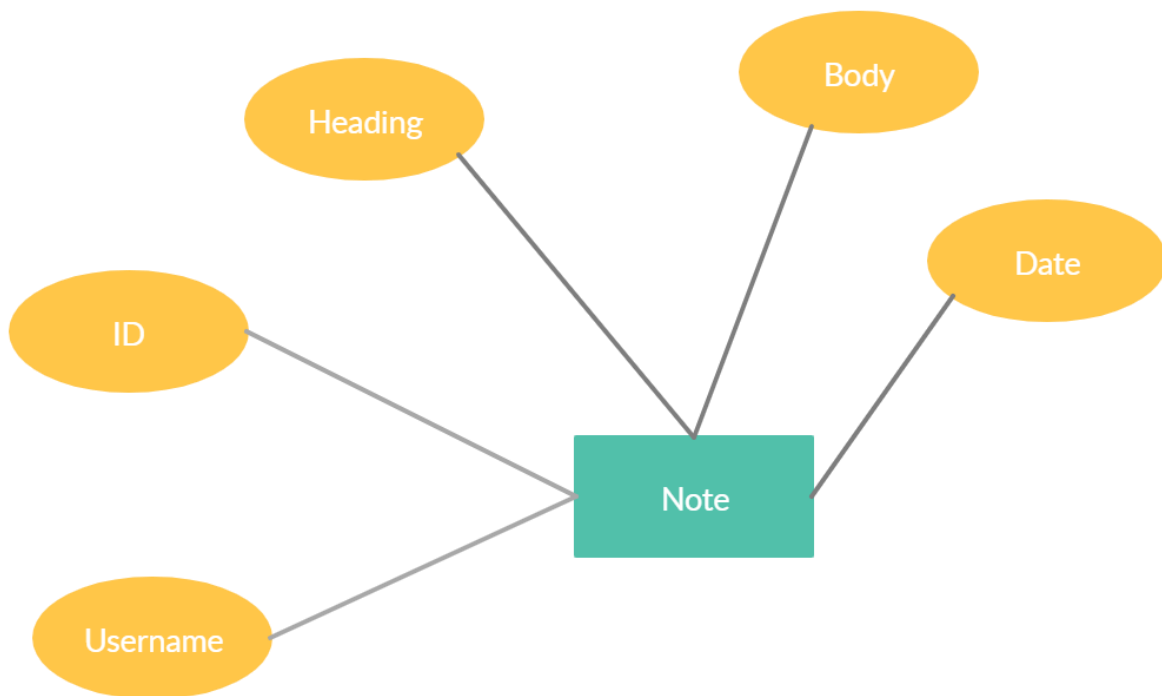
- Secure access of confidential data (user's details).
- 24 X 7 availability
- Better component design to get better performance at peak time
- Flexible service based architecture will be highly desirable for future extension

Design

I. Use Case Diagram



II. E-R Diagram



III. Data Dictionary

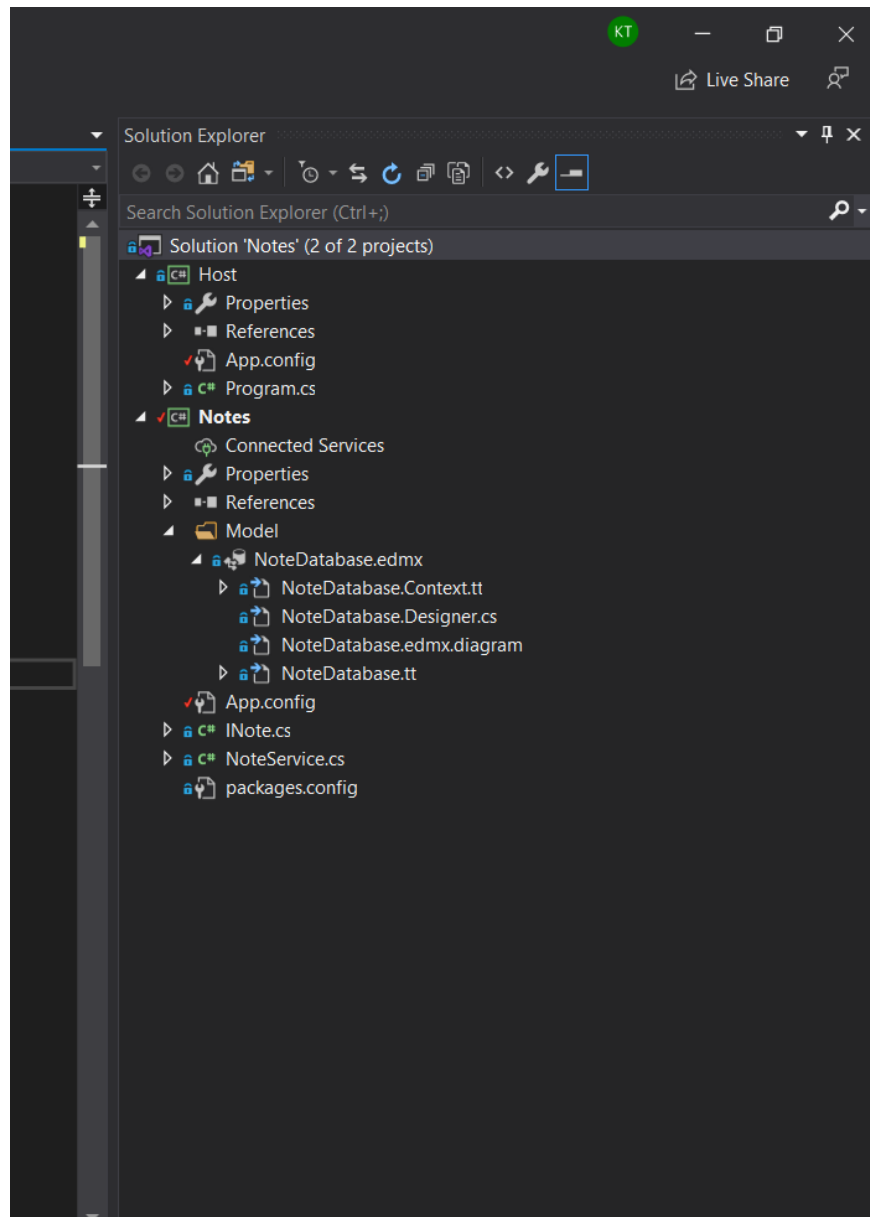
Notes

#	Field Name	Data Type	Width	Required	Unique	PK/FK	Referenced Table	Description
1	Id	Int	20	True	True	PK	-	-
2	Username	Varchar	50	True	True	-	-	
3	Heading	Varchar	50	True	False	-	-	Heading for the Note
4	Body	Varchar	Max	True	False	-	-	Body/content for the Note
5	Date	DateTime	-	True	False	-	-	Date of last access of the note

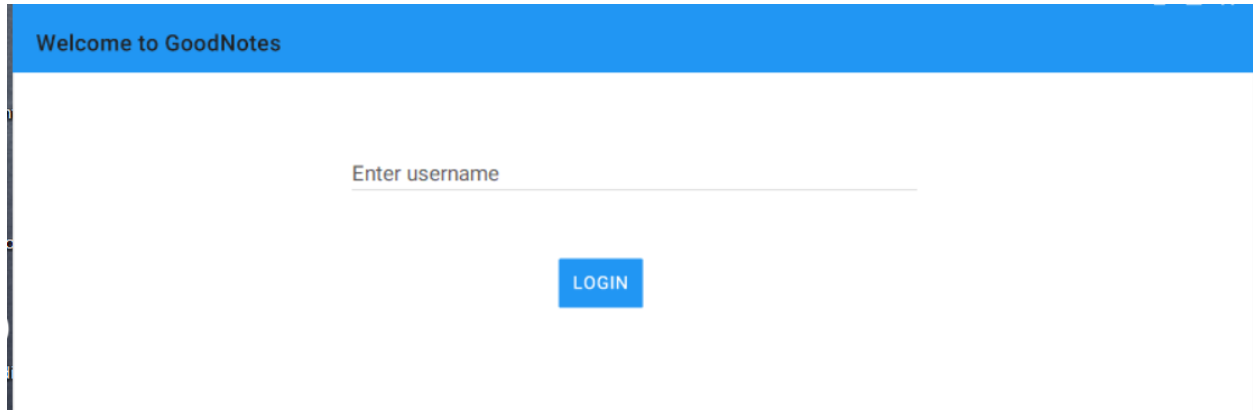
Implementation Details

- Implementation of web service for Notes(an efficient note managing application) is done using WCF Service.
- Windows Communication Foundation (WCF) is a framework for building service-oriented applications. Using WCF, we can send data as asynchronous messages from one service endpoint to another. A service endpoint can be part of a continuously available service hosted by IIS, or it can be a service hosted in an application.
- UI design done using Forms in WCF. It represents and targets desktop users.
- For effective database operations, used inbuilt Microsoft SQL server inside Microsoft Visual Studio.
- Modules:
 - Login
 - Notes Management
 - Add a note
 - Remove a note
 - Update a note
 - View all notes

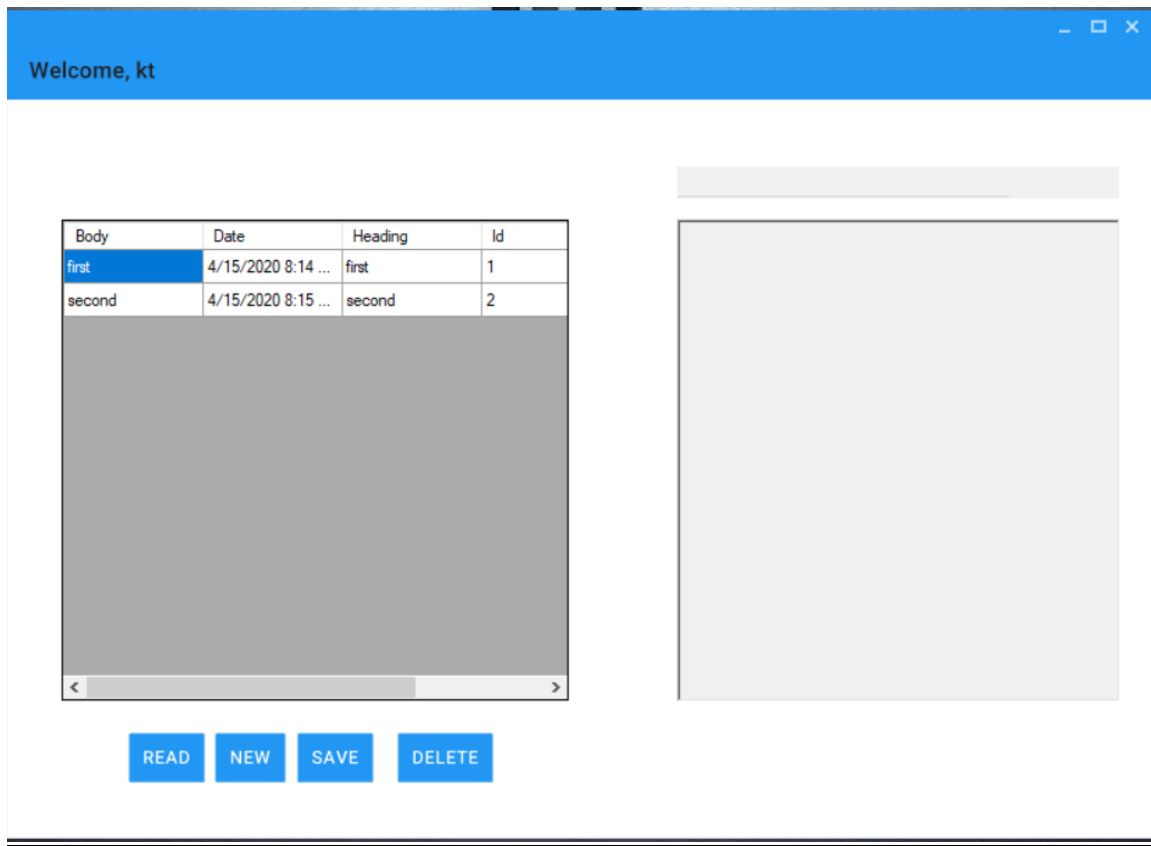
Project structure Hierarchy



Screenshots



I) Login window



II) Display of all Notes

Welcome, kt

Body	Date	Heading	Id
first	4/15/2020 8:14 ...	first	1
second	4/15/2020 8:15 ...	second	2

READNEWSAVEDELETE

Add title

III) Add a new Note

Welcome, kt

Body	Date	Heading	Id
first	4/15/2020 8:14 ...	first	1
second	4/15/2020 8:15 ...	second	2

READNEWSAVEDELETE

first

first

IV) Update/Read a existing note

Conclusion

- We have implemented all the necessary functionalities .
- The application is mostly dynamic so that all data is rightful for users.
- Application aims to give effective user experience to end-users.

Limitation and Future extension

- The application is not in the platform like android or iOS. it is targeted to desktop users only.

Functionality not Implemented

- Login with Google, Facebook or other media
- Media Transfer

Future Extension

- Powerful and smooth UI
- Efficient Database Operation
- Password protected channel

Bibliography

- To Implement Project Successfully we referred many websites, blogs, forums. We created most of the diagrams in [UMLet](#) - open source and fast diagram maker software.
- Reference Links:
 - <https://medium.com/>
 - <https://github.com/>
 - <https://stackoverflow.com/>
 - <https://www.tutorialspoint.com/>
 - <https://docs.microsoft.com/en-us/dotnet/framework/wcf/>
 - <https://www.c-sharpcorner.com/technologies/wcf>