# Teacher Assistant for the online class-Desktop Application

Software Requirements Specification(SRS)

#### **Submitted By**

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## Contribution (1. Introduction)

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MD. Ashiquer Rahman

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## 5. Other Nonfunctional Requirements

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#### 1. Introduction

## 1.1 Purpose

The Teaching Assistant (TA) for an online course can be valuable in allowing an instructor to give more time to teaching, and less time to other kinds of tasks. Toward this goal, possible areas of TA responsibility have been identified in this document based on recommendations from academic sources.

#### 1.2 Document Conventions

Teaching Assistant software are well designed and python is used. Teaching Assistant service are for student where student can see their teacher information.

#### 1.3 Intended Audience and Reading Suggestion

This software is intended for different types of readers such as University admin, system designer, system developer and students. By reading this document a reader can learn about what the project is implemented for and how it will present it basic ideas. There are two users Teacher and students. Teacher control the whole system. In the beginning we designed a web page like where would be the option to upload document. Login Teacher – Teacher uploaded assignment, quiz, homework, project.

Student login --- submit all assignment, quiz, homework, project.

#### 1.4 Product scope

In this project scope, there are different types of work for teacher. Teacher can modify the whole things like assignment type, project type. This project will help for teacher through online class. This software will be used by the student to uploaded their home task. So that teacher of the system can evaluate the whole system.

#### 1.5 Reference

https://www.google.com/

https://www.linkedin.com/

## 2. Overall Description

Teacher Assistant for the online class-Desktop Application(TADA) is meant to serve as a common platform where management of everyday academic tasks can be carried out conveniently. Our goal is to develop a replacement to the academic portal used at North South University(NSU) making it more users friendly and to promote academic networking among the users.

#### 2.1.1 System Interface

MySQL will be used as web server. The user inputs data via the MySQL Database using Python forms. The actual program that will perform the operations is written in Python.

#### 2.1.2 User interface

The new system shall provide a very intuitive and simple interface to the user and the administrator, so that the user can easily navigate through Login pages, assignments, midterm exam,quiz, final exam,contact information, add data, update data, delete data, clear data, search by ID, search by name, search by contact number and all information is displayed on a display.

#### 2.1.3 Memory Constraints

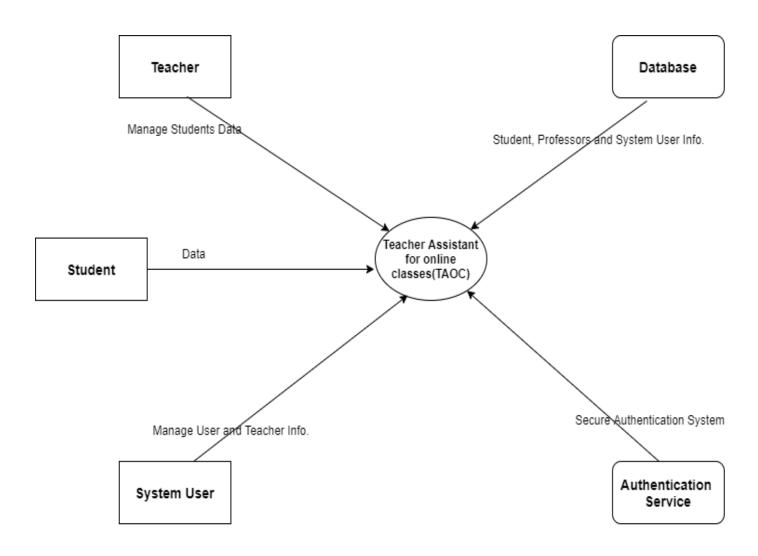
Memory constraints will come into play when the size of MySQL grows to a considerable size.

## 2.1.4 Operations

The product shall have operations to protect the database from being corrupted or accidentally altered during a system failure.

## 2.2 Product functions

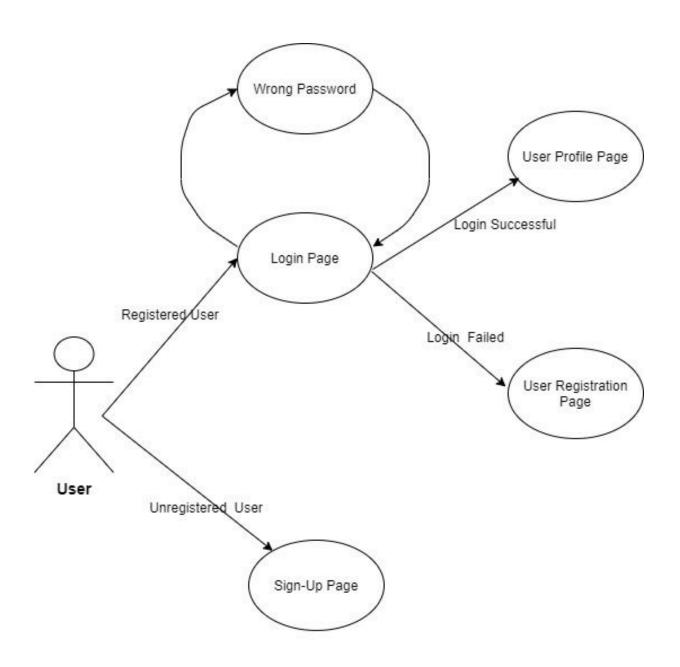
## 2.2.1 Context Diagram



**Context Diagram** 

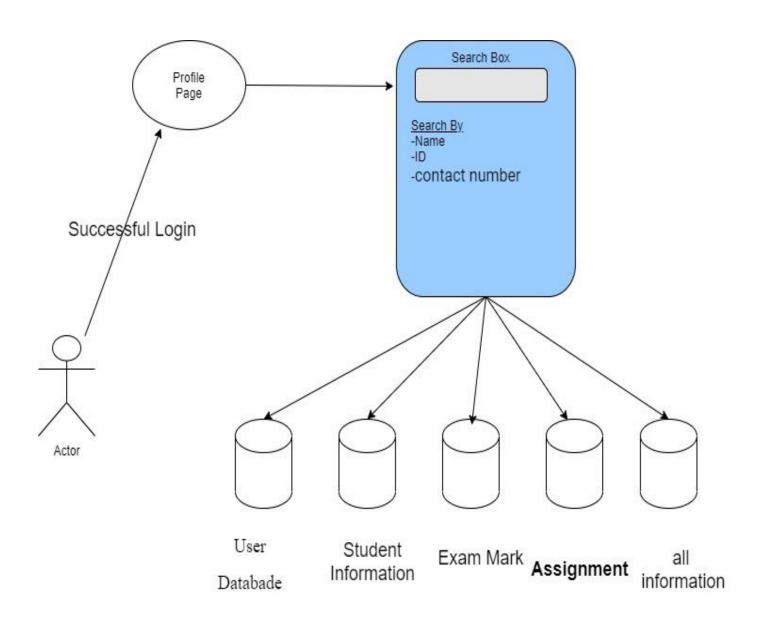
## 2.2.2 Use Case Diagrams

## 2.2.3 User Login



User Login

## 2.2.4 Search



## 3. Specific Requirements

## 3.1 External interface

## 3.2 Python Application

The actual program that will perform the operations is written in Python. All data will be stored in a database.

## 3.3 MySQL Database

It's an open source SQL database to store all data which communicates with the application on the server.

## 3.4 Functional Requirements Use Case Scenario

#### 3.5 Use Case Scenario 1 - User Login

#### **User Login**

| Purpose        | User logs in to system using existing     |
|----------------|---|
|                | profile.                                  |
| User           | A user with an existing profile.          |
| Input Data     | Profile username and password.            |
| Output Data    | Corresponding page data.                  |
| Invariants     | Profile table data and user               |
|                | information.                              |
| Pre-conditions | User is not logged in to a profile, input |
|                | profile exists in data base, user         |
|                | password matches profile                  |

#### 3.6 Software Interface

Software interface includes database, operating system, tools, libraries and integrated commercial components. It refers to documents that describe detailed application programming interface protocols. Identify data that will be shared across software component.

#### 3.7 Communication Interface

Communication interface basically deals with students information, other data, desktop application installation, configuring the drive. There is a fact for Reading information from drive and writing information from driver. Control Characters, Instrument Address, Data. It includes communication security or encryption issues, data transfer rates and synchronization mechanisms. We will includes all of these facts in this project.

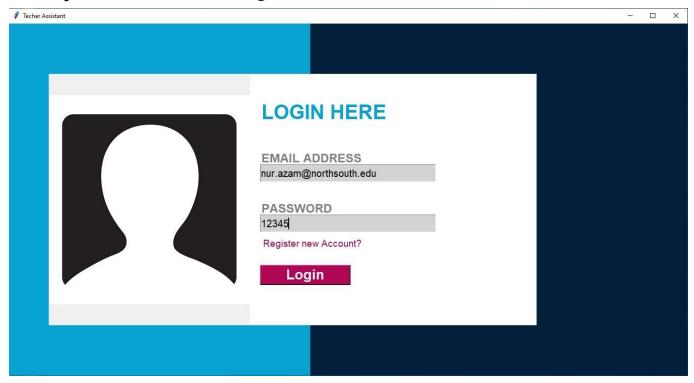
## 4. System Features

#### 4.1 Use Case Scenario 2 – Student Info data/Other data

A user wants to look at the Data/Student Info.

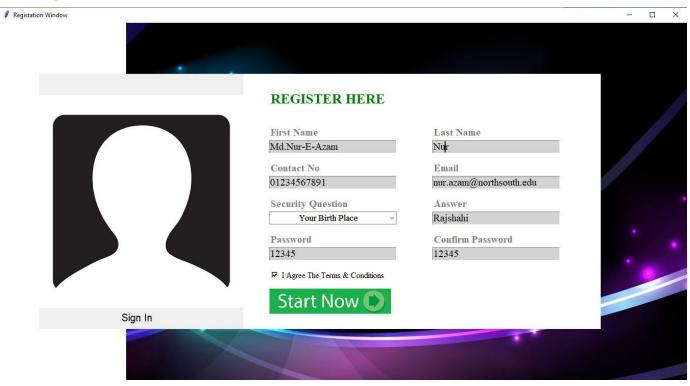
| Purpose         | A user wants to look at the time  |
|-----------------|---|
|                 | Data/Student Info.  |
| User            | Any user of the academic portal.  |
| Input Data      | The keyword.  |
| Output Data     | data/Student Info.  |
| Invariants      | The user and the portal itself.   |
| Pre-conditions  | User is logged in.  |
| Post-conditions | Other data/Student Info Data.   |
| Basic Flow:     | User logs in, Selects the Other data/Student Info data button and gets the results. |

## 4.2 Python Tkinter - Login Form



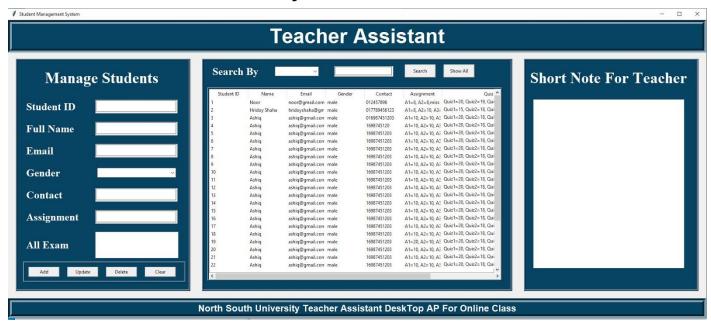
Login Form for Teaching Assistant Desktop Application Project

## 4.3 Python Tkinter - Registration Form



Registration Form for Teaching Assistant Desktop Application Project

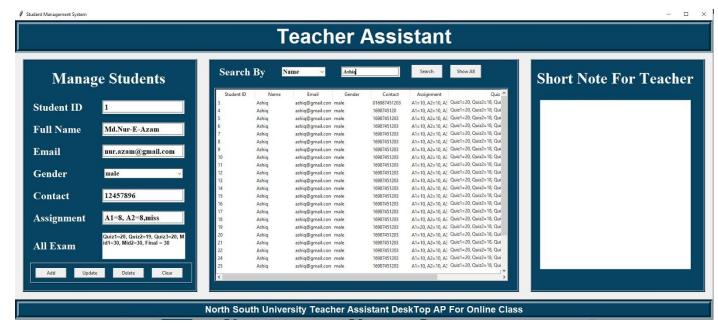
## 4.4 Python Dashboard



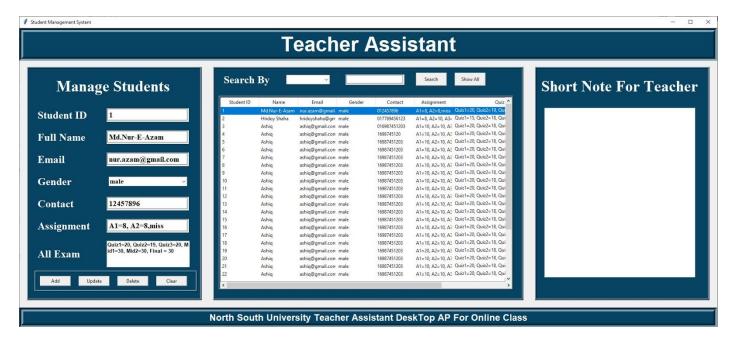
Full Dashboard for Teaching Assistant Desktop Application Project



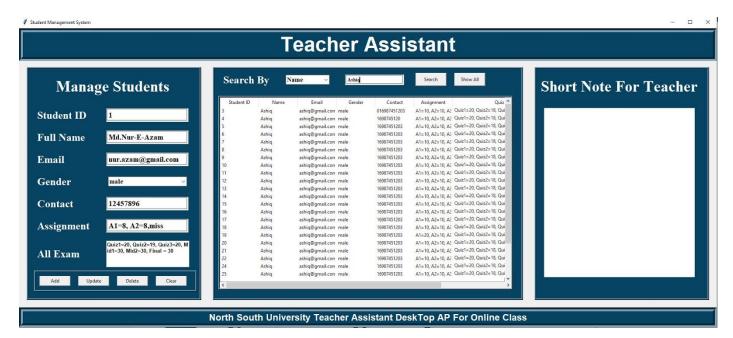
Search By Roll Number



Adding a data



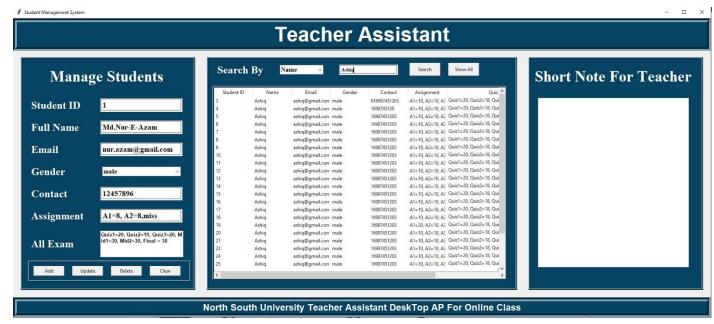
Update an it



Delete an item



Clear all data



Search By Name



Search By Contact Number

#### 5.1 Performance Requirements

For any Desktop Application main challenge. For application, there should be enough smoothness for user. The application should work lifelike and steady. There should be 90%. The application must function flexibly in any platform.

#### **5.2 Safety Requirements**

As if the system files or data folders of this application are the core items like all other Desktop Application. They are very much important to run the application fruitfully. Editing or deleting them without proper knowledge can make the application crush or behave unusual. It is highly recommended to leave them at their own state.

#### 5.3 Security Requirements

There are many people who are concerned about use of feature works with the Desktop. So, it is highly recommended that a user must desktop application. Otherwise there is a chance of losing private data.

## 5.4 Software Quality Attributes

The must be available for all users of desktop, also it will be open source and non commercial Desktop Application, so the pricing is free. For development purposes, there might be some minimum advertisements but it is highly recommended for the developers to avoid all types of ads and links that uses trackers to track user's personal information.

#### 5.5 Business Rules

The application is mostly simple to use and made for everyone so that anyone can use it. But there are some advanced features which should be used with a bit of care, so it is recommended that children under 5 should not be using this application. Also the settings should be used with caution.

