**Application Design – ThisIsSpartanTech**

The following is the user interface design for the ThisIsSpartanTech Database Application. It will illustrate the elements of the user interface each role (Database Administrator, School Administrator, Professor or Student) will encounter as they se the application. This will be a Client/Server application as the registration process and use of the application will occur on campus.

***BASE LOGIN PAGE***

When the application is launched, the top pane of the window will contain the words “University Login Page.” In the middle of the window, there are two boxes for input labeled “University ID” and “Password.” After username and password are input, the user will select a button located below titled “Login.” If the input username and password are incorrect, the screen will display a message that states, “Incorrect Username and/or Password.” If the input username/password are correct, the respective home screen will be displayed depending on role.

At the bottom right corner of the login page, a separate button will be displayed titled “DBA

Login.” If a user selects this button, an additional window will be displayed with the same title mentioned above – however, there will be input boxes titled “University ID,” “Password,” and “DBA ID.” The DBA ID is a 10-digit hexadecimal value. A “Login” button will be below these input boxes, along with a button titled “Return” that will take the user back to the original login page. When “Login” is selected by the user, the same authentication process as mentioned above will occur - if IDs and password are valid, the DBA home screen will be displayed. If

IDs and password are invalid, an error message stating “Incorrect

University ID/Password/DBA ID” will be displayed.

***DATABASE ADMINISTRATOR***

After login, the Database Administrator will be shown one option – “Enter Terminal.” This option will allow the DBA to enter a terminal mode to input SQL commands directly in order to add/modify/delete tables.

***ADMINISTRATOR***

After login, users with the “School Administrator” role will see the following buttons with the following options:

*Add or Remove a Course*

* After selection, the user will select “Add Course” or “Remove Course.”
  + If “Add Course” is selected, the user will be prompted to input the Course Number, Course Name, Professor Name, Semester, Year, and Section Number. The CRN will be automatically generated once added to the database. Buttons “Cancel” and “Add” will be at the bottom of the window.
  + If “Remove Course” is selected, the user will enter the CRN and Department of the course to be deleted. Buttons “Delete” and “Cancel” will be at the bottom of the window.
  + Respective messages will be displayed after “Add” and “Delete” buttons are selected – “Course added,” or “Course deleted.”

*Add or Remove a Professor*

* After selection, the user will select “Add Professor” or “Remove Professor.”
  + If “Add Professor” is selected, the user will be prompted to enter First Name, Last Name, Password, and Department. Professor’s ID will be generated automatically upon addition to the database.
  + If “Remove Professor” is selected, the user will be prompted to enter the ID of the professor to be deleted.
  + Respective messages will be displayed after “Add” and “Delete” buttons are selected – “Professor added,” or “Professor deleted.”

*Add or Remove a Student*

* After selection, the user will select “Add Student” or “Remove Student.”
  + If “Add Student” is selected, the user will be prompted to enter First Name, Last Name, and Major. Student’s ID will be generated automatically upon addition to the database.
  + If “Remove Student” is selected, the user will be prompted to enter the First Name, Last Name, and Major of the student to be deleted.
  + “Add” and “Delete” buttons (respectively) will be at the bottom of the window and will save the user’s selections.

*Modify Student Registration*

* After selection, the user will be prompted to enter a Student ID. After the ID is entered, the user will be presented with options to Add Course or Drop Course.
  + If “Add Course” is selected, the user will be prompted to select a department from a dropdown list of available departments. After a department is selected, a dropdown list is displayed of all available courses in that department. Once a course is selected from the list, an “Add Course” button is displayed at the bottom of the window that will register the student for that course.
  + If “Delete Course” is selected, the user will be prompted to enter a CRN and department for the course to be deleted.
  + “Add” and “Delete” buttons (respectively) will be at the bottom of the window and will save the user’s selections.

*View Student Record*

* After selection, the user will be presented with a text box to enter a Student ID. Selecting “Enter” will generate the selected student’s record, including courses a student has taken and the grade earned for each course.

***PROFESSOR***

After login, users with the “Professor” role will see the following buttons with the following options:

*See Current Courses*

* After selection, the window will display all courses that the respective professor is assigned to.

*Modify Course Grades*

* After selection, the user will select a course they teach from a dropdown list of available courses. After selecting “Assign Grade” at the bottom of the window, the user is prompted to enter the student ID of the student whose grade the user wants to update. After entering a grade, the user selects “Update” or “Cancel.” If “Update” is selected, the specified student’s grade is changed for that course.

***STUDENT***

After login, users with the “Student” role will see the following buttons with the following options:

*View Current Courses*

* Once selected, a list of current registered courses along with grades for those courses will be displayed.

*Modify Course Registration*

* After selection, the user will be prompted to select “Add Course” or “Drop Course.”
  + If “Add Course” is selected, the user is prompted to enter a Department ID. A dropdown box of courses for that department is displayed. The user will select a course from that list and select the “Add Course” button at the window. The course will then be added to the RegisteredFor table for that student.
  + If “Delete Course” is selected, the user will see a dropdown box that contains a list of all currently registered courses. After selecting the course to be dropped from the dropdown box, the user will select the “Drop Course” button at the bottom of the window – the course will then be dropped from the RegisteredFor table in the database for that student.

Messages will be displayed to either confirm that changes were made successfully or reflect that there was an error in updating the database with the input information.