Testing of the Project

Report and status of testing of various components is listed here

Overview

- **Login Page:** Tested and working as expected
- **Student Homepage:** All services funtional
- **Apply Leave form (for Staff, Prof, HOD, Dean, Dir):** Fully Functional
- **Office:** Fully Functional
- **Leave approval/decline portal (for Prof, HoD, Dean, DPPC):** Fully functional

```
For details about components and forms, refer to documentation
```

Login Page

This is the starting point of the application

Components status

- All components tested and functional

Past issues

None

Student Page

Covers: All services for student users

Components status

- All components tested and functional

Past issues

- Change password option

Problem: When Changing password 2 times in a row, can't use the new passowrd in the 2nd attempt
Steps to recreate: Open a student profile > Edit profile > Change Password once > Try to change password once again using the new password set up in previous step
Cause: The old password is fetched when the student homepage form is loaded, it wasn't updated after changing password **Fix:** The hash value stored in the variable *password* has been set to update when the password updates
Status: Fixed

- Adding ordinary leaves

Problem: If applied for 2 consecutive ordinary leaves totaling to more than 5 days, despite telling the user that it's not allowed a leave application is pushed to database
Also when this situation occurs, the testing for 'OL' being less than 5 is breached through and even extremly long Ordinary leaves (well over 20 days) are pushed to database
Cause: There seems to be missing cases in the If Else chain used in Sub NAApplyButton_Click
Fix: No fix as of now
Status: Pending -> **FIXED Comments (Siddharth)** OL can't span for more than 5 days in one go, but total can be greater than 5. How were you able to save OL with 20 days? kindly give the steps with exact dates. thanks
Steps To Recreate: Apply for an ordinary leave > Apply again, the starting date this time should be immediately next to the ending date last time, select the ending date with a 15 days gap and apply

- Mediacal, Academic and Parental Leaves

Problem: For extra long leaves, even if the user declines to apply the application is pushed to DB
Steps to recreate: Open student homepage > Apply > Try to Apply for academic leave of 1 month > When propmted wheather want to continue or not, choose 'No' > The application will still be pushed to DB
Cause: The boolean variable getting the response always evaluates to true
Fix: Changing all instances of

```
Dim ans As Boolean = MessageBox....
```

To

```
Dim ans As DialogResult = Message...
```

And changing all corresponding If-Else conditions with

```
If ans = DialogResult.Yes
```

Status: Fixed

- Visual Feedback when applying ordinary leave

Problem: When longer than permitted Ordinary Leaves are applied, although there's no application submitted, the user gets to visual response
Steps to recreate: Student Homepage > Apply > Ordinary leave > Dates more than 5 days apart and not adjacent to other leaves
Cause: Missing message box
Status: Being worked on by siddharth -> **FIXED**

Leave Apply Form

This works as:

1. Complete functionality of Director and Staff
2. One Component of Prof, Dean, HoD

Components status

- All components tested and functional

Past issues

- Any date combination works **Problem:** Leaves show error when needed but are pushed to DB
  Steps to recreate: Open leave apply form > Attempt an obviously wrong date combination > Apply
  Cause: Missed cases when using Flags to test leave application
  Fix: Using "Exit Sub" to stop attempting to apply whenever illegal combination is encountered
  Status: Fixed

- DB is not tested for presence of duplicate leaves
  Problem: Same leave can be applied any number of times
  Steps to recreate: Open leave apply form > Apply a valid date combination > Apply > Attempt an overlapping date combination > Apply
  Cause: TO check in database for overlapping
  Fix: Add a database comparision for overlap
  Status: Fixed

Office Form

Covers:
Full functionality of Office

Components status

- All components tested and functional

Past issues

- Can't update user password

Problem: Message box with 'Syntax error' pops up whenever a user passowrd is updated
Steps to recreate: Open office form > Open update user form > Attempt to update password
Cause: Password is a reserved keyword of the access database engine, using it as column name can cause unintended results
Fix: Changed column name in query from
`field name` to `[field name]`
Status: Fixed

- Forms don't clear up

Problem: The 3 forms to add/delete/update users don't clear up once used. Makes it cumbersome to use them multiple times as every field needs to be manually cleared
Steps to recreate: Open office form > use one of the forms to successfully add/delete/update users > close them and they still have valuse from last time
Cause: No instructions to clear fields
Fix: Add the necessary code after the success messageBox is shown
Status: Fixed

- Connection not closed after deleting user

Problem: Attempting any connection to database after making a failed attempt in deleting user gives connection not closed error
Steps to recreate: Open office home > Delete user form > Attempt to delete a user that doesn't exist > close form and try somehting that needs DB connection (Eg. load a username info)
Cause: If a delete user attempt gets a non-existent user as input, it directly breaks out of Sub without closing conections
Fix: Close connections before exiting the Sub
Status: Fixed

- Updating user, no checks

Problem: Unlike the add user form, there are no checks to see what is being entered where, letters can go to phone and fields can go empty
Steps to recreate: Office home > Update user > Attempt an invalid update > confirm by loading user data on office home form
Cause: No checks on input
Fix: Add checks for all inputs
Status: Fixed

- Student lastname zero length error

Problem: When attempting to make a new student user, lastname field can't be zero length exception is thrown
Steps to recreate: Office homapage > add user > Student user > Fill each field except Last Name > Apply > error along the lines of "Student.LastName cannot be a zero length string"
Cause: It may be a required value in database
Fix: Editing the forms in database and remove required from lastname field in Students form
Status: Fixed

Rest Users Form

Covers:

1. Full functionality of DPPC
2. Part functionality of Prof, HoD and Dean

Components status

- All components tested and functional

Past issues

None