8 Golden Rules of Interface Design

Ben Shneiderman's eight golden rules are intended to help designers solve problems, and for this purpose Shneiderman offers them significant help with his eight heuristics. In order to improve usability, an interface needs to be well designed to be "user-friendly"[1].

Ben Schneiderman's 8 golden rules are:

- 1. Strive for Consistency: by utilizing familiar icons, colors, menu hierarchy, call-to-actions, and user flows[2].
- 2. Enable frequent users to use shortcuts: keyboard shortcuts for copying and pasting, so as the user becomes more experienced, they can navigate and operate the user interface more quickly and effortlessly[2].
- 3. Offer informative feedback: The user should know where they are at and what is going on at all times. For every action there should be appropriate, human-readable feedback within a reasonable amount of time[2].
- 4. Design dialogue to yield closure: *Tell them what their action has led them to[2].*
- 5. Offer simple error handling: Systems should be designed to be as fool-proof as possible, but when unavoidable errors occur, ensure users are provided with simple, intuitive step-by-step instructions to solve the problem as quickly and painlessly as possible[2].
- 6. Permit easy reversal of action: offer users obvious ways to reverse their actions[2].
- 7. Support internal locus of control: Allow your users to be the initiators of actions. Give users the sense that they are in full control of events occurring in the digital space[2].
- 8. Reduce short-term memory load: interfaces should be as simple as possible with proper information hierarchy, and choosing recognition over recall[2].

Ben Shneiderman's

Eight Golden Rules of Interface Design

- I. Strive for consistency
- 2. Enable frequent users to use shortcuts
- 3. Offer informative feedback
- 4. Design dialog to yield closure
- 5. Offer simple error handling
- 6. Permit easy reversal of actions
- 7. Support internal locus of control
- 8. Reduce short-term memory load

Figure 1: Ben Schneiderman's 8 Golden Rules

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Interface Before Applying the 8 Golden Rules

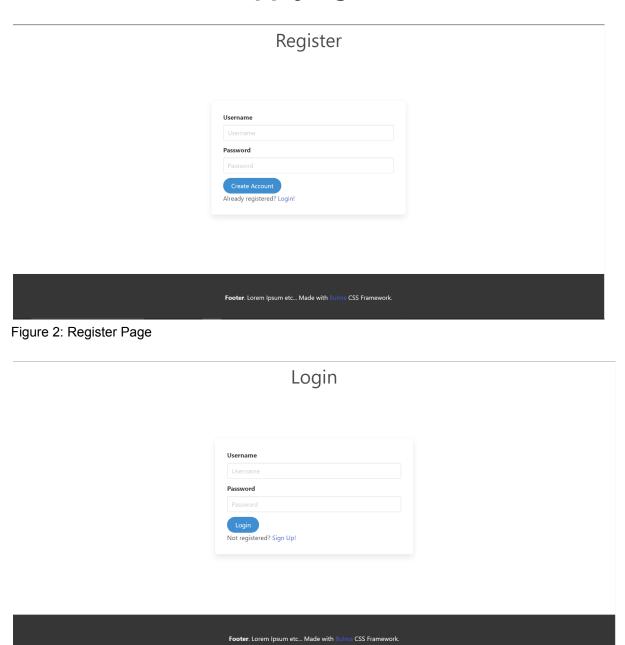


Figure 3: Login Page

Student Professor





Footer. Lorem Ipsum etc... Made with Bulma CSS Framework.

Figure 4: Profile Page

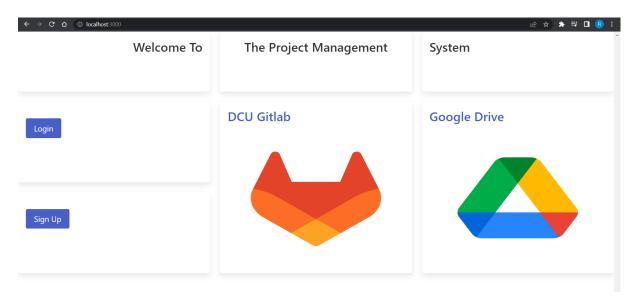


Figure 5: Index Page



Figure 6: Student Home Page

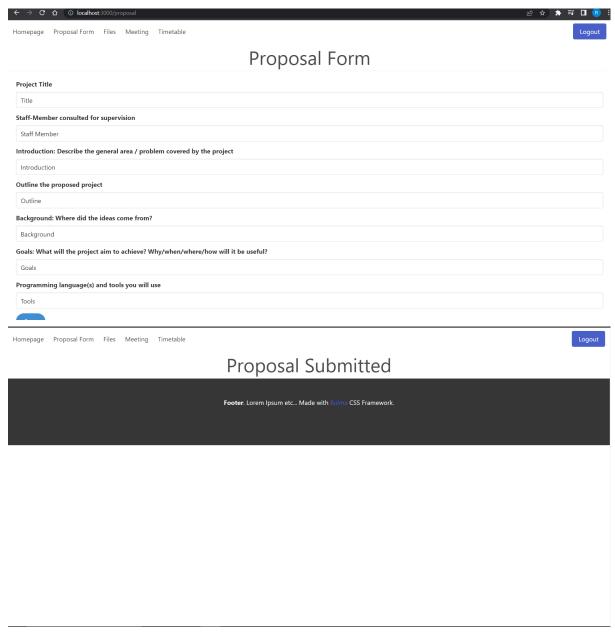


Figure 7: Proposal Form Page

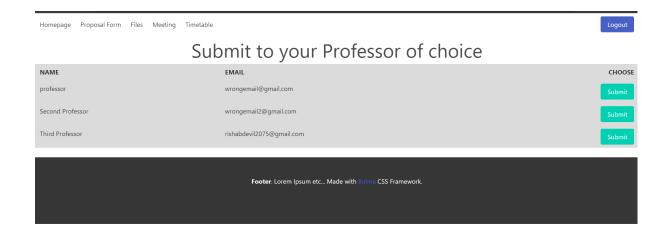


Figure 8:Submit Proposal Page

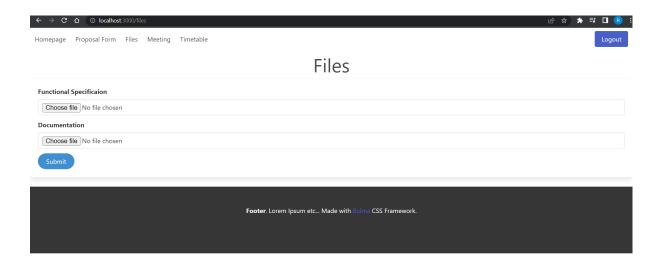


Figure 9: Files Page

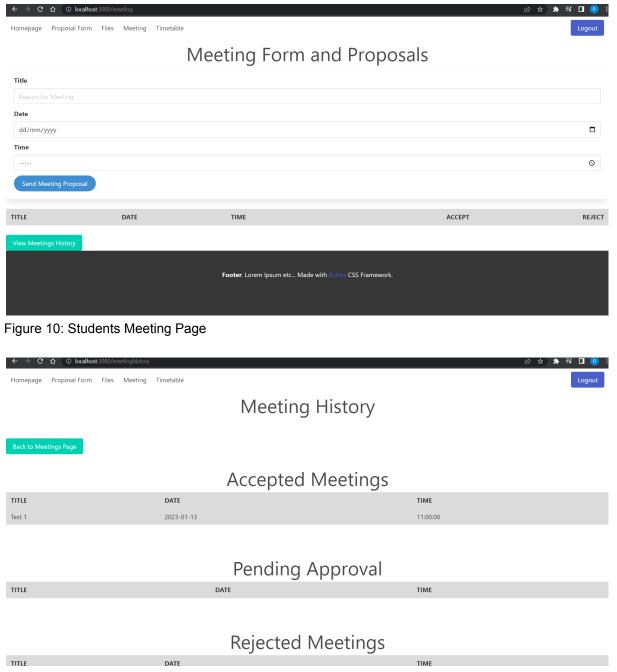


Figure 11: Students Meeting History Page

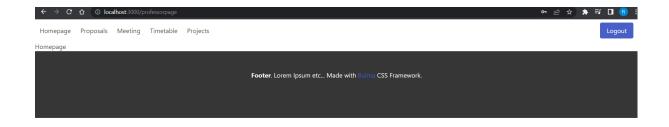


Figure 12: Professor Home Page

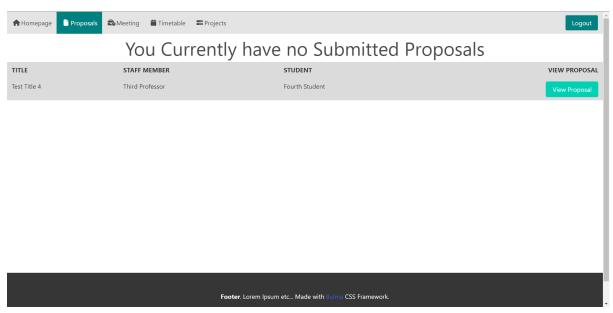


Figure 13: Submitted Proposals Page

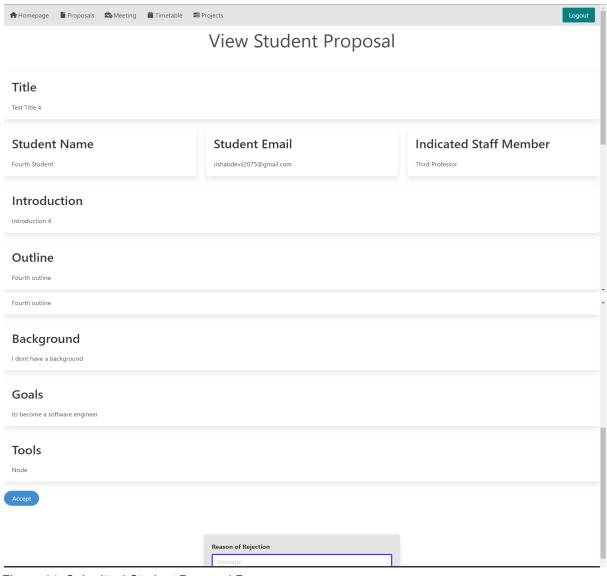


Figure 14: Submitted Student Proposal Page



Figure 15: Professorss Meeting Page

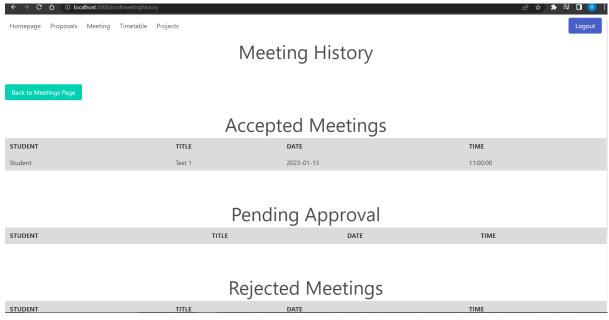


Figure 16: Professorss Meeting History Page

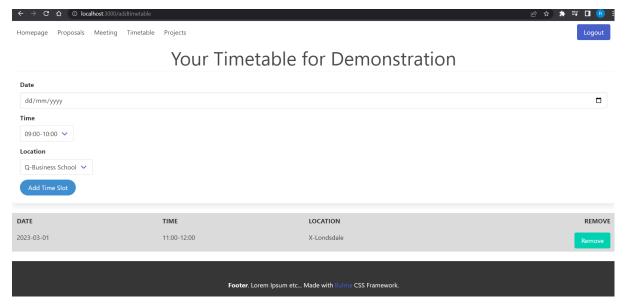


Figure 17: Add Timetable Slot Page

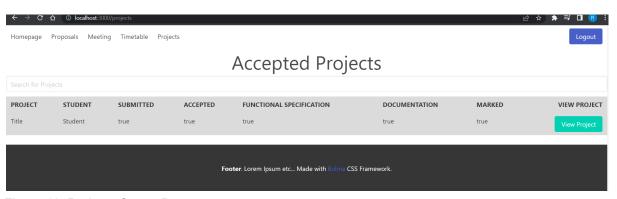
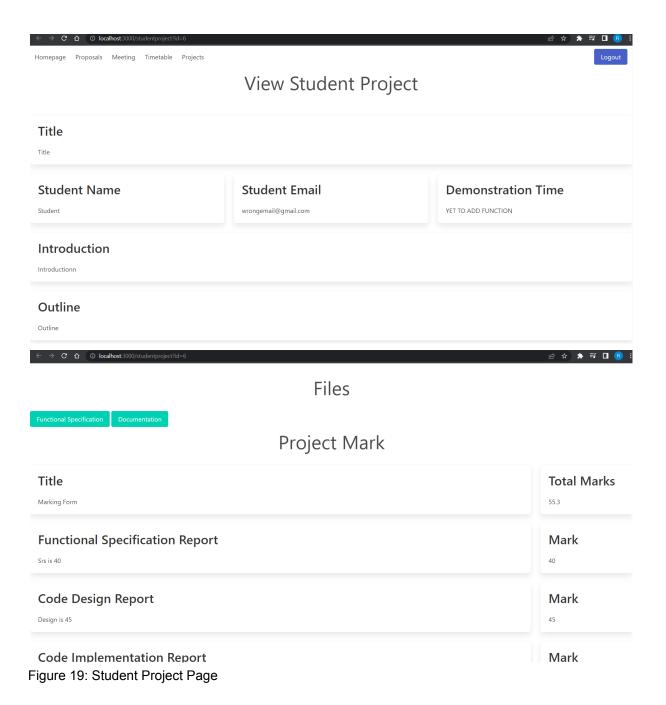


Figure 18: Projects Status Page



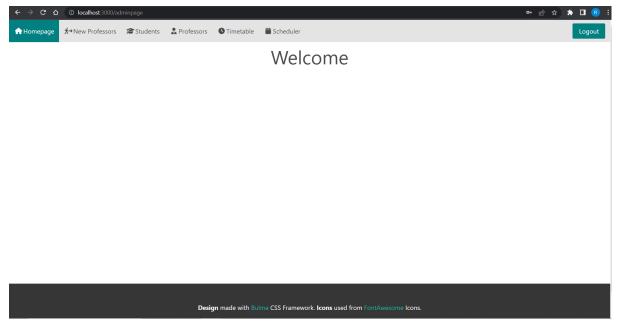
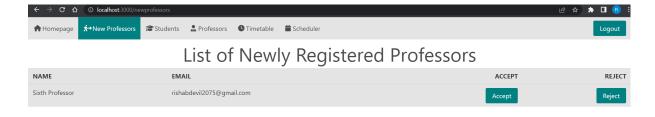
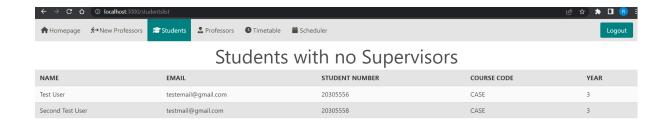


Figure 20: Admin Home Page



Design made with Bulma CSS Framework. Icons used from FontAwesome Icons.

Figure 21: Newly Registered Professors List Page

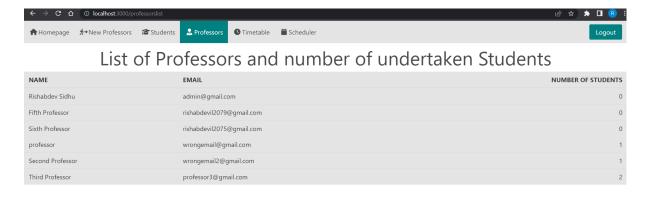


Students with Supervisors

NAME	EMAIL	STUDENT NUMBER	COURSE CODE	YEAR	SUPERVISOR
Student	wrongemail@gmail.com	20309616	CASE	3	professor
Second Student	wrongemail 2@gmail.com	20309999	CASE	3	Second Professor
Fourth Student	rishabdevil 2075@gmail.com	20305557	CASE	3	Third Professor
Third Student	wrongemail3@gmail.com	20305555	CASE	3	Third Professor

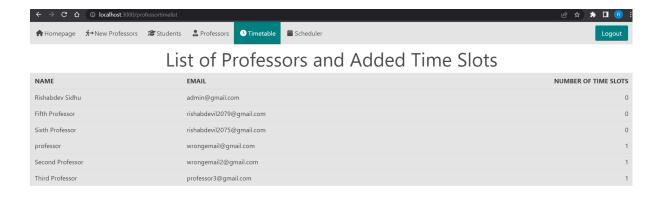
Design made with Bulma CSS Framework. Icons used from FontAwesome Icons.

Figure 22: Students List Page



Design made with Bulma CSS Framework. Icons used from FontAwesome Icons.

Figure 23: Professors List Page



Design made with Bulma CSS Framework: Icons used from FontAwesome Icons.

Figure 24: Professors and Number of Time Slots List Page

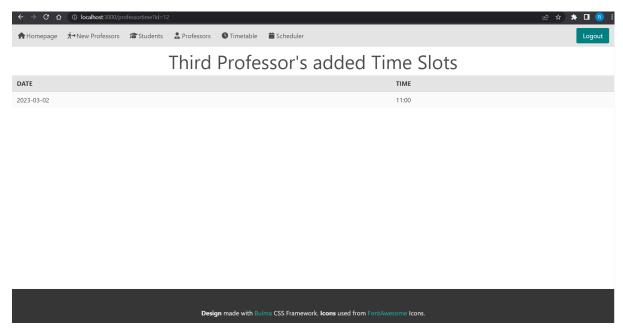


Figure 25: Individual Professor and Added Time Slots List Page

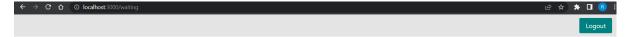


Generate Demonstration Schedule





Figure 26: Schedule Demonstration Timetable Page



Waiting Confirmation From Admin

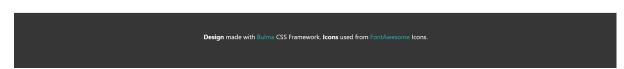
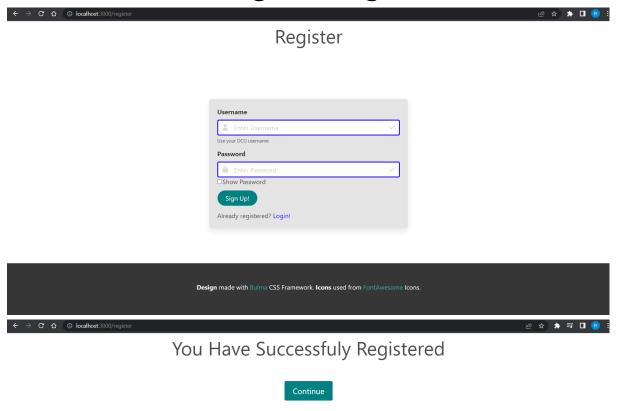


Figure 27: New Professor Waiting Page

Applying the 8 Golden Rules to each page

Register Page



Design made with Bulma CSS Framework. Icons used from FontAwesome Icons.

Figure 28 Register Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design

Enable Frequent Users to Use Shortcuts.

• Unable to add any shortcuts as frequent users will not use this page

Offer Informative Feedback.

- The submit button and login link highlight when hovering over them
- The submit button changes to a loading icon when clicked on
- After the user registers, there will be a button to continue and redirects the user to the login page

Design Dialog to Yield Closure.

• After the user registers, a title displays the user has registered

Offer Simple Error Handling.

- If a field isn't filled in, a message is displayed prompting the user to fill it in
- If the user already exists, alert the user of the error
- If the user is already logged in, redirect them

Permit Easy Reversal of Actions.

 Unable to add reversal of action, once the user is registered with the details, they cannot change it

Support Internal Locus of Control.

- Users can choose any password of their choice
- Users can click the show password box to view their password

Reduce Short-Term Memory Load.

• Icons are added to the form displaying a user/person and lock/password

Login Page

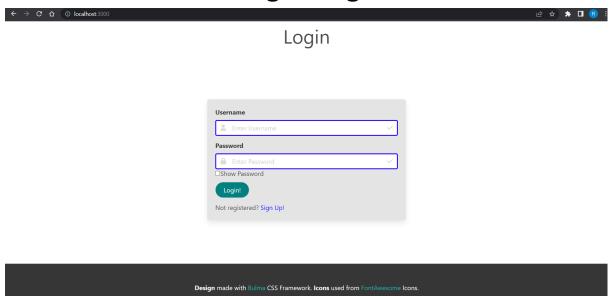


Figure 29: Login Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design

Enable Frequent Users to Use Shortcuts.

• The login form is on the main page so when users enter the URL, they will be prompted to log in

Offer Informative Feedback.

- The submit button and sign up link highlight when hovering over them
- The submit button changes to a loading icon when clicked on
- After the user registers, there will be a button to continue and redirects the user to the login page

Design Dialog to Yield Closure.

After the user logs in, they are redirected to their respective homepage

Offer Simple Error Handling.

- If a field isn't filled in, a message is displayed prompting the user to fill it in
- If the user enters a wrong username or password, alert the user of the error
- If the user is already logged in, redirect them

Permit Easy Reversal of Actions.

• When the user logs in, they will be redirected to their homepage where there will be a logout button to instantly log out

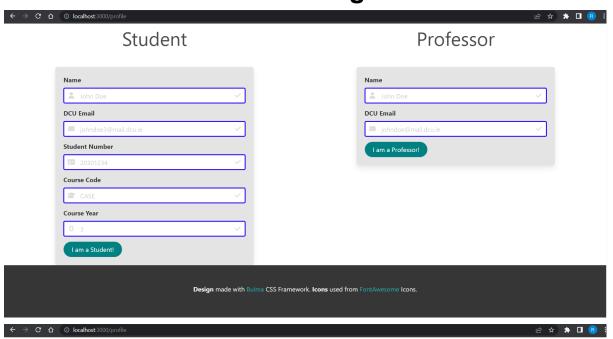
Support Internal Locus of Control.

Users can click the show password box to view their password

Reduce Short-Term Memory Load.

• Icons are added to the form displaying a user/person and lock/password

Profile Page



Student Details Successfully Entered

Continue

Design made with Bulma CSS Framework. Icons used from FontAwesome Icons.

Figure 30: Profile Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts as frequent users will not use this page

Offer Informative Feedback.

- The submit buttons highlight when hovering over them
- The submit buttons change to a loading icon when clicked on
- After the user registers, there will be a button to continue and redirects the user to the login page

Design Dialog to Yield Closure.

 After the user enters their details, a title displays the user has entered their details along with their role

Offer Simple Error Handling.

- If a field isn't filled in, a message is displayed prompting the user to fill it in
- If the user is already a student or professor they will be redirected

Permit Easy Reversal of Actions.

• Unable to add reversal of action, once the user is registered with the details, they cannot change it

Support Internal Locus of Control.

User's can choose if they are a student or a professor

Reduce Short-Term Memory Load.

 Icons are added to the form displaying a user/person, mail/email and id/student number

Error404 Page

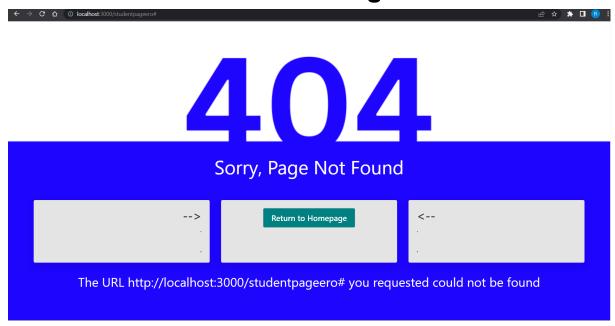


Figure 31: Error404 Page

Strive for Consistency

- Same colors from the color palette
- Consistent font

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts as frequent users will not use this page

Offer Informative Feedback.

- A title is displayed of the error and informs the user the URL they entered does not exist
- The back button is highlighted when hovering over it

Design Dialog to Yield Closure.

No Dialogue to yield closure required

Offer Simple Error Handling.

• If a user enters a wrong URL, display this page

Permit Easy Reversal of Actions.

• A button to return to the homepage/login page is provided

Support Internal Locus of Control.

No internal locus of control required

Reduce Short-Term Memory Load.

 An error 404 image is displayed so the user can recall the type of error they encountered

Student Homepage

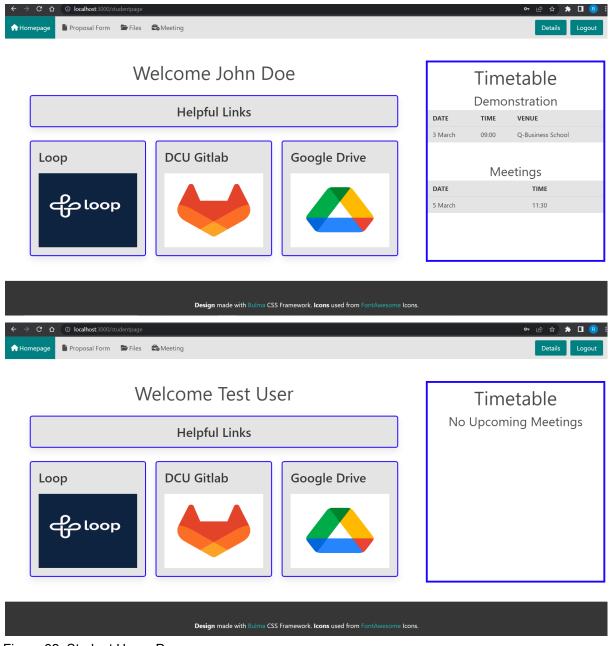


Figure 32: Student Home Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent information display panel

Enable Frequent Users to Use Shortcuts.

• If the user enters the main URL and logged in then they will be redirected here

Offer Informative Feedback.

• The title will display the user's name to let them know they are logged in

Design Dialog to Yield Closure.

- The links in boxes highlight when hovering over them
- When a user clicks a link, a new tab will be opened to that link

Offer Simple Error Handling.

• If the user is not a student, redirect them to the login page or professor homepage

Permit Easy Reversal of Actions.

• When the user logs in, there will be a logout button displayed on the navigation bar

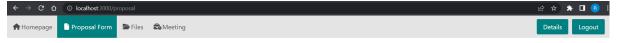
Support Internal Locus of Control.

• The user can view a list of upcoming meetings with their date and time

Reduce Short-Term Memory Load.

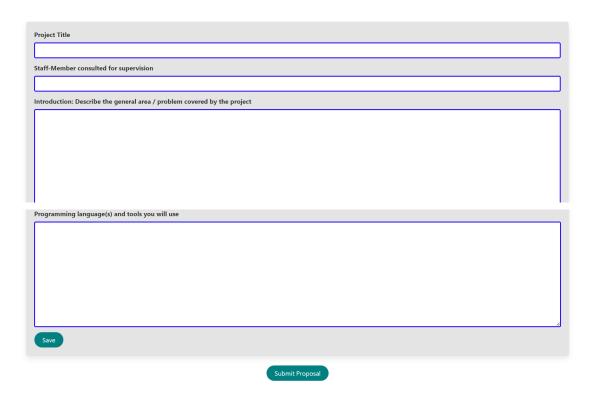
 Home icon and distinguishing color added to the home section on the navigation bar

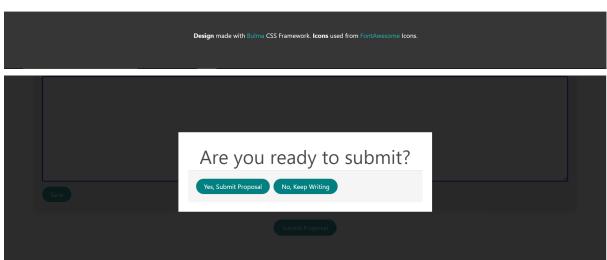
Proposal Form Page



Proposal Form

Deadline: 29/10/2023







Deadline for Proposal Reached

Figure 33: Proposal Form Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the proposal form

Offer Informative Feedback.

• The save button and submit button highlight when hovering over them

Design Dialog to Yield Closure.

- On clicking, the save button changes to saved then reloads the page to display the changes
- After submitting the proposal form, the title will change to display that the proposal was submitted

Offer Simple Error Handling.

- If a field isn't filled in, a message is displayed prompting the user to fill it in
- If the user is not a student, redirect them to the login page or professor homepage

Permit Easy Reversal of Actions.

• Unable to add reversal of action, once the proposal has been submitted, the user must wait for approval

Support Internal Locus of Control.

• If the user clicks submit, a confirmation box appears to continue or go back

Reduce Short-Term Memory Load.

 Form icon and distinguishing color added to the proposal section on the navigation bar

Submit Proposal Page

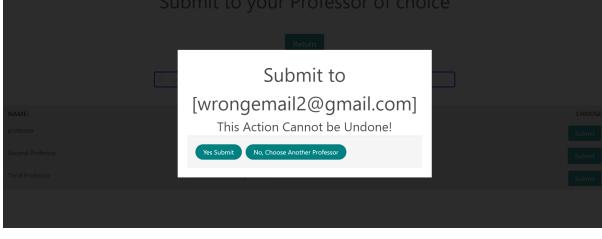
Submit to your Professor of choice

Return

NAME: EMAIL CHOOSE professor wrongemail@gmail.com Submit
Second Professor wrongemail@gmail.com Submit
Third Professor rishabdevil2075@gmail.com Submit

Design made with Bulms CSS Framework Icons used from FontAvesome Icons.

Submit to your Professor of choice



Proposal Submitted to Third Professor

Continue

Figure 34: Submit Proposal Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent table design

Enable Frequent Users to Use Shortcuts.

 Unable to add any shortcuts for the submit proposal page, not required to do often

Offer Informative Feedback.

• The submit button highlight when hovering it

Design Dialog to Yield Closure.

 A title displayed to inform the user the proposal was submitted as well as the professor it was submitted to

Offer Simple Error Handling.

- If the user enters the URL after they submitted their proposal, a title is displayed to inform them the proposal was submitted
- If the user is not a student, redirect them to the login page or professor homepage

Permit Easy Reversal of Actions.

• Unable to add reversal of action, once the proposal has been submitted, the user must wait for approval

Support Internal Locus of Control.

• If the user clicks submit, a confirmation box appears to continue or go back

Reduce Short-Term Memory Load.

- The staff name from the proposal form is displayed so the user remembers whom they should send the proposal to
- Form icon and distinguishing color added to the proposal section on the navigation bar

Files Page

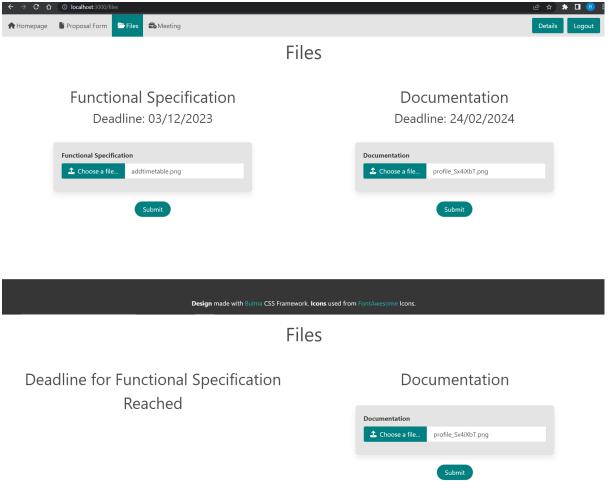


Figure 35: Files Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for file page, not required to do submit often

Offer Informative Feedback.

- The Submit button highlights when hovering over it
- The deadlines for each file is displayed

Design Dialog to Yield Closure.

 After submitting the files, the title will change to display that the files were submitted

Offer Simple Error Handling.

- If a field isn't filled in, a message is displayed prompting the user to fill it in
- If the user is not a student, redirect them to the login page or professor homepage

Permit Easy Reversal of Actions.

 Unable to add reversal of action, once the files have been submitted, they cannot be changed

Support Internal Locus of Control.

• If the user clicks submit, a confirmation box appears to continue or go back

Reduce Short-Term Memory Load.

- Icons are added to the form to display a file upload
- File icon and distinguishing color added to the files section on the navigation bar

Student Meeting Page

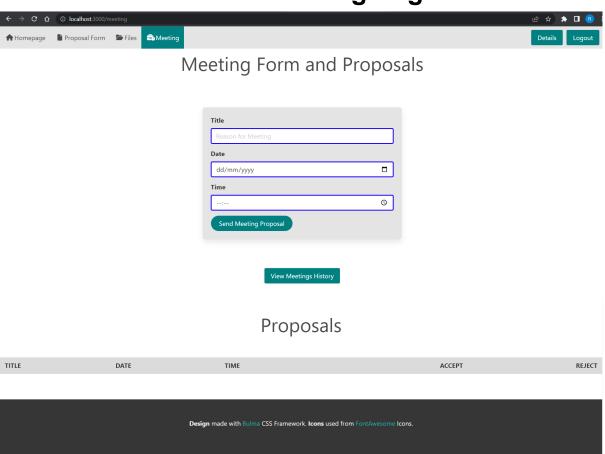


Figure 36: Students Meeting Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design
- Consistent table design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the meeting page

Offer Informative Feedback.

All buttons highlight when hovering over them

Design Dialog to Yield Closure.

 After accepting/rejecting a meeting proposal, the buttons will change to display accepted or rejected respectively

Offer Simple Error Handling.

• If a field isn't filled in, a message is displayed prompting the user to fill it in

Permit Easy Reversal of Actions.

- No reversal of action possible, once submitted, must wait for approval
- No reversal of action possible, once meeting accepted or rejected, cannot change it

Support Internal Locus of Control.

Users can choose when and what time the meeting will be

Reduce Short-Term Memory Load.

- Icons are added to the form displaying a calendar/date and clock/time
- Calendar icon and distinguishing color added to the meeting section on the navigation bar

Student Meeting History Page

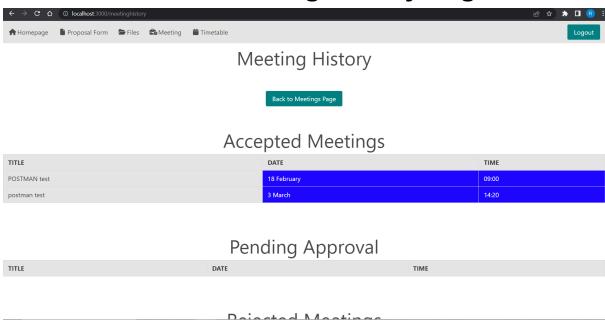


Figure 37: Students Meeting History Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent table design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the meeting history page

Offer Informative Feedback.

• The Back button highlights when hovering over it

Design Dialog to Yield Closure.

 No Design dialogue to yield closure required, users will only need to view the data on their meetings history

Offer Simple Error Handling.

No error handling required, no errors possible here

Permit Easy Reversal of Actions.

The user can return to the meeting page upon clicking the back button

Support Internal Locus of Control.

 The user can view the different meeting status whether accepted, rejected or pending approval on the 3 different tables shown

Reduce Short-Term Memory Load.

• Meetings that are accepted and upcoming in the future are highlighted in blue

Professor Waiting Page

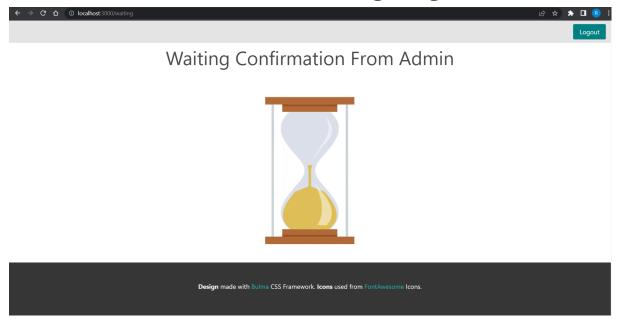


Figure 38: New Professor Waiting Page

Strive for Consistency

- Same colors from the color palette
- Consistent font

Enable Frequent Users to Use Shortcuts.

• Unable to add any shortcuts as frequent users will not use this page

Offer Informative Feedback.

 A title is displayed to let the user know they must wait for the admin's confirmation

Design Dialog to Yield Closure.

No Dialogue to yield closure required

Offer Simple Error Handling.

Redirect the user here if they attempt to access any other page

Permit Easy Reversal of Actions.

A Logout button is provided on the top right

Support Internal Locus of Control.

No internal locus of control required

Reduce Short-Term Memory Load.

• An hourglass gif is displayed to inform the user they must wait

Professor Homepage

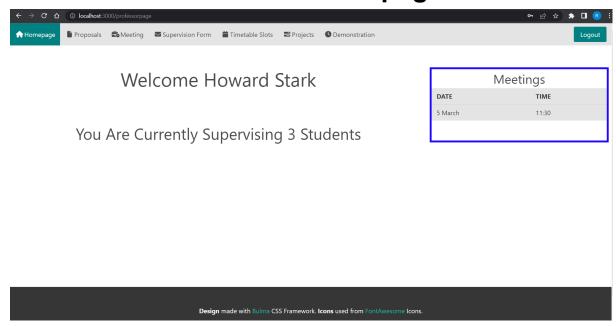


Figure 39: Professor Home Page

Strive for Consistency

- Same colors from the color palette
- Consistent font

Enable Frequent Users to Use Shortcuts.

 If the user enters the main URL and logged in then they will be redirected here

Offer Informative Feedback.

The title will display the user's name to let them know they are logged in

Design Dialog to Yield Closure.

No dialogue to yield closure required

Offer Simple Error Handling.

 If the user is not a professor, redirect them to the login page or student homepage

Permit Easy Reversal of Actions.

 When the user logs in, there will be a logout button displayed on the navigation bar

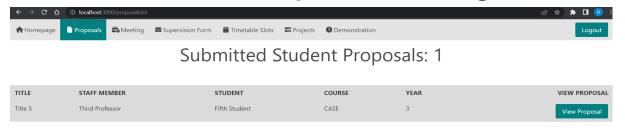
Support Internal Locus of Control.

 The user can view a list of upcoming meetings with their date, time and student

Reduce Short-Term Memory Load.

 Home icon and distinguishing color added to the home section on the navigation bar

Submitted Proposals List Page



Design made with Bulma CSS Framework. Icons used from FontAwesome Icons.

Figure 40: Submitted Proposals Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent table design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the proposals list page

Offer Informative Feedback.

• The View button highlights when hovering over it

Design Dialog to Yield Closure.

 When the user clicks view proposal, the student proposal is opened in another tab

Offer Simple Error Handling.

 If the user is not a professor, redirect them to the login page or student homepage

Permit Easy Reversal of Actions.

 No reversal of action required, the user is only viewing a list of submitted proposals

Support Internal Locus of Control.

 There will be a list of view buttons so the user can choose which project to view

Reduce Short-Term Memory Load.

 Form icon and distinguishing color added to the proposals list section on the navigation bar

Individual Student Proposal Page

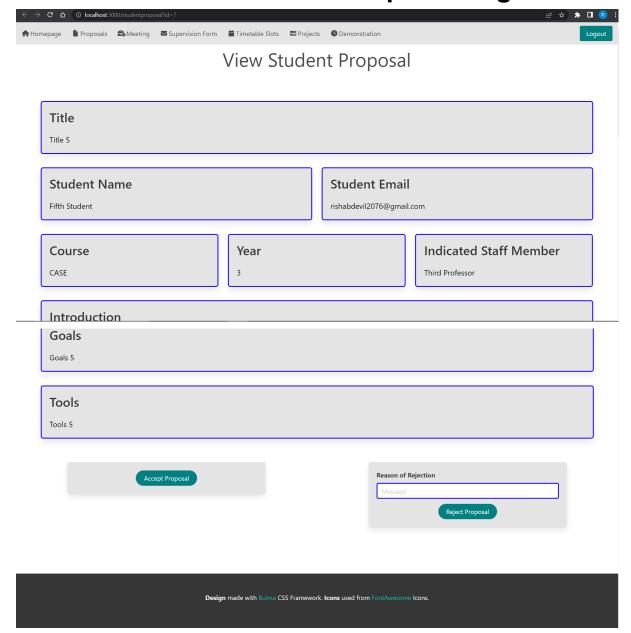


Figure 41: Submitted Student Proposal Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent information display design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for each individual student project page

Offer Informative Feedback.

Accept and Reject buttons highlight when hovering over them

Design Dialog to Yield Closure.

 When the user accepts or rejects a proposal page, a title is displayed to inform the user that they have accepted or rejected a project proposal

Offer Simple Error Handling.

• If the user is not the professor the proposal was submitted to, redirect them

Permit Easy Reversal of Actions.

• The proposal is opened in a new tab so the tab can be closed and the user can return to the proposals list page

Support Internal Locus of Control.

• The user can choose to accept or reject the proposal

Reduce Short-Term Memory Load.

• The accept and reject button are at the bottom of the student proposal page so the professor can make their choice after reading the proposal

Professor Meeting Page

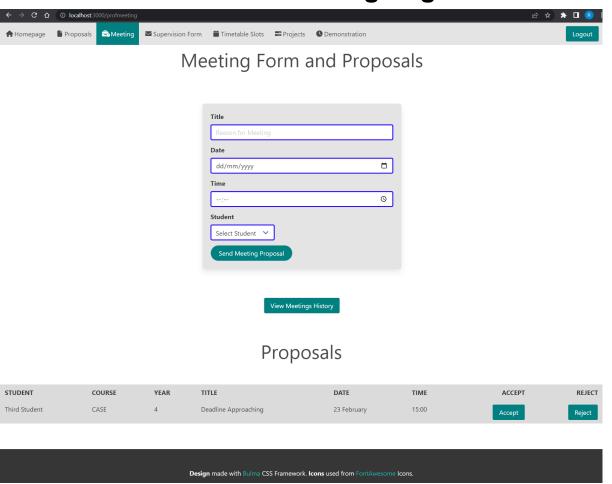


Figure 42: Professorss Meeting Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design
- Consistent table design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the meeting page

Offer Informative Feedback.

All buttons highlight when hovering over them

Design Dialog to Yield Closure.

 After accepting/rejecting a meeting proposal, the buttons will change to display accepted or rejected respectively

Offer Simple Error Handling.

• If a field isn't filled in, a message is displayed prompting the user to fill it in

Permit Easy Reversal of Actions.

- No reversal of action possible, once submitted, must wait for approval
- No reversal of action possible, once meeting accepted or rejected, cannot change it

Support Internal Locus of Control.

Users can choose when and what time the meeting will be

Reduce Short-Term Memory Load.

- Icons are added to the form displaying a calendar/date and clock/time
- Calendar icon and distinguishing color added to the meeting section on the navigation bar

Professor Meeting History Page

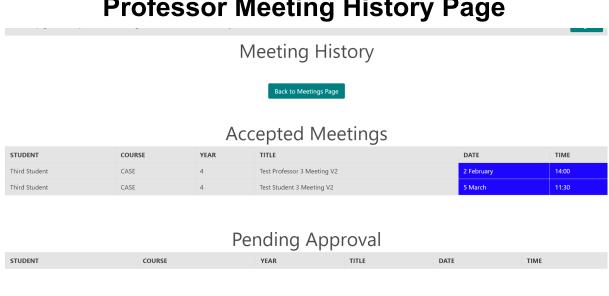


Figure 43: Professorss Meeting History Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent table design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the meeting history page

Offer Informative Feedback.

The Back button highlights when hovering over it

Design Dialog to Yield Closure.

• No Design dialogue to yield closure required, users will only need to view the data on their meetings history

Offer Simple Error Handling.

• No error handling required, no errors possible here

Permit Easy Reversal of Actions.

• The user can return to the meeting page upon clicking the back button

Support Internal Locus of Control.

 The user can view the different meeting status whether accepted, rejected or pending approval on the 3 different tables shown

Reduce Short-Term Memory Load.

• Meetings that are accepted and upcoming in the future are highlighted in blue

Add Time Slot Page

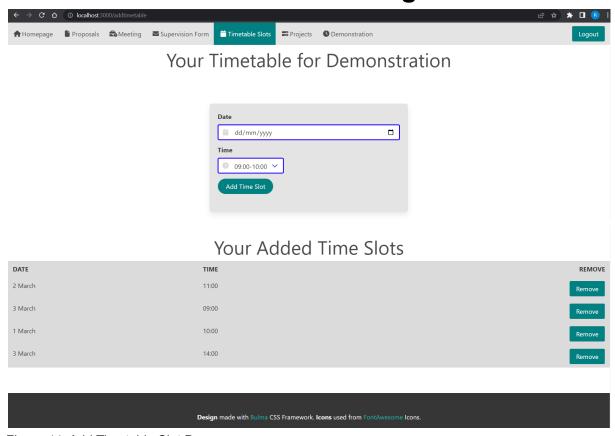


Figure 44: Add Timetable Slot Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design
- Consistent table design

Enable Frequent Users to Use Shortcuts.

• Unable to add any shortcuts for the timetable page

Offer Informative Feedback.

All buttons highlight when hovering over them

Design Dialog to Yield Closure.

 The page will reload after the user adds/removes a time slot to display the update

Offer Simple Error Handling.

- If a field isn't filled in, a message is displayed prompting the user to fill it in
- If the user is not a professor, redirect them to the login page or student homepage

Permit Easy Reversal of Actions.

The user can remove their added time slots

Support Internal Locus of Control.

Users can choose their time slot date, time and location

Reduce Short-Term Memory Load.

- Icons are added to the form displaying a calendar/date, clock/time and location
- Time icon and distinguishing color added to the add time section on the navigation bar

Projects List and Status Page

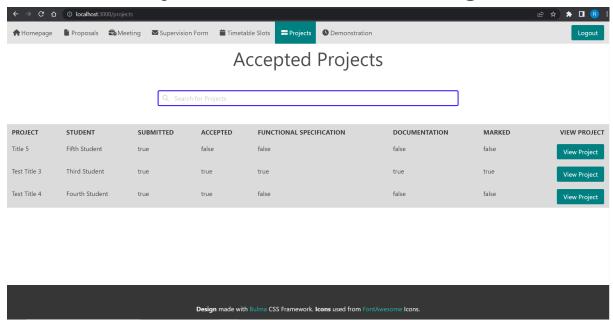


Figure 45: Projects Status Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent table design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the accepted projects page

Offer Informative Feedback.

The View button highlights when hovering over it

Design Dialog to Yield Closure.

• When the user clicks view project, the student project is opened in another tab

Offer Simple Error Handling.

 If the user is not a professor, redirect them to the login page or student homepage

Permit Easy Reversal of Actions.

 No reversal of action required, the user is only viewing a list of projects and their status

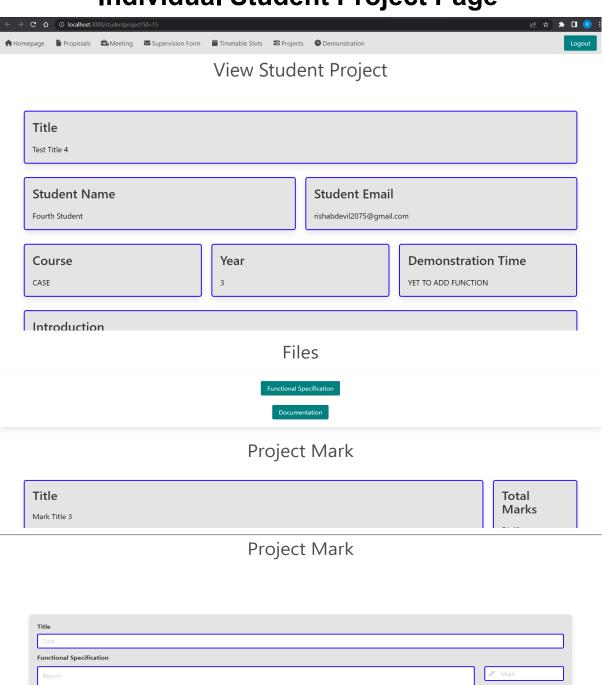
Support Internal Locus of Control.

 There will be a list of view buttons so the user can choose which project to view as well as a search bar to filter through for a specific project

Reduce Short-Term Memory Load.

 Projects icon and distinguishing color added to the projects section on the navigation bar

Individual Student Project Page



Title

Functional Specification

Report

Are you ready to submit?

This Action Cannot be Undone!

Yes, Submit Grade

No, Edit Grade

Figure 46: Student Project Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design
- Consistent information display design

Enable Frequent Users to Use Shortcuts.

• Unable to add any shortcuts for each individual student proposal page

Offer Informative Feedback.

All buttons highlight when hovering over them

Design Dialog to Yield Closure.

 The marking form will change to a table of marking information once the form is marked

Offer Simple Error Handling.

- If a field isn't filled in, a message is displayed prompting the user to fill it in
- If the user is not the professor that is undertaking the project, redirect them to the login page or student homepage

Permit Easy Reversal of Actions.

 The project is opened in a new tab so the tab can be closed and the user can return to the projects page

Support Internal Locus of Control.

• If user clicks submit mark, a confirmation box appears to continue or go back

Reduce Short-Term Memory Load.

 Icons are added to the form displaying a pen for the grade of each project section 0-100

Admin Homepage

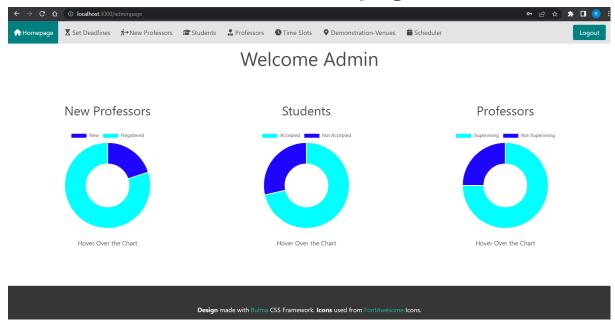


Figure 47: Admin Home Page

Strive for Consistency

- Same colors from the color palette
- Consistent font

Enable Frequent Users to Use Shortcuts.

 If the user enters the main URL and logged in then they will be redirected here

Offer Informative Feedback.

 The page will display data related to how many new professors have registered, how many students do not have a supervisor and how many professors have not undertaken any students

Design Dialog to Yield Closure.

No dialogue to yield closure required

Offer Simple Error Handling.

• If the user is not an admin, redirect them to the login page, student homepage or professor homepage

Permit Easy Reversal of Actions.

 When the user logs in, there will be a logout button displayed on the navigation bar

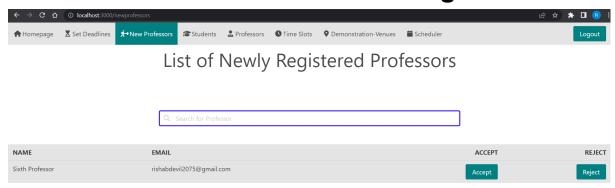
Support Internal Locus of Control.

 The user can view data related to how many new professors have registered, how many students do not have a supervisor and how many professors have not undertaken any students

Reduce Short-Term Memory Load.

• Home icon and distinguishing color added to the home section on the navigation bar

New Professors List Page



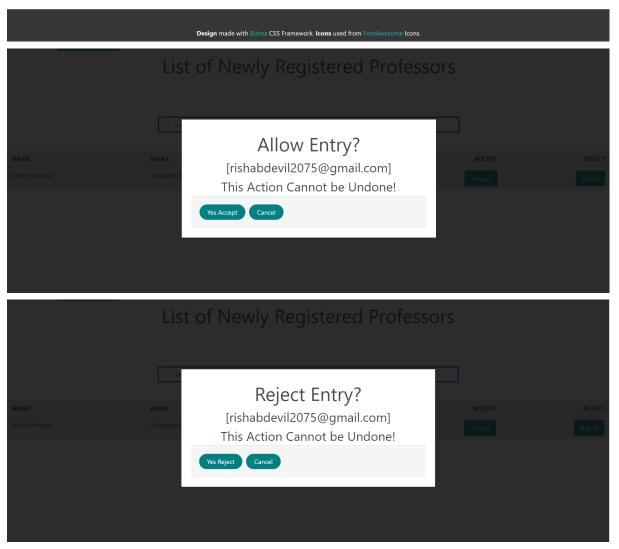


Figure 48: Newly Registered Professors List Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent table design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the new professors list page

Offer Informative Feedback.

- The Accept and Reject buttons highlight when hovering over them
- A search bar is provided to search for a professor(s) by name

Design Dialog to Yield Closure.

 After Accepting/Rejecting, the page is reloaded and the professor is gone from the table to let the admin know their action was successful

Offer Simple Error Handling.

• If the user is not an admin, redirect them to the login page, student homepage or professor homepage

Permit Easy Reversal of Actions.

 Unable to add reversal of action, once the new professor has been accepted or rejected the decision cannot be reverted apart from the confirmation modal

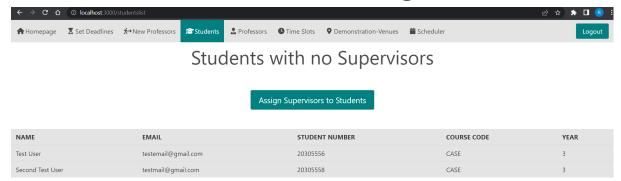
Support Internal Locus of Control.

 If the user clicks accept or reject, a confirmation box appears to continue or go back

Reduce Short-Term Memory Load.

- The professor's email is displayed on the confirmation modal so the admin remembers who they clicked on
- New person icon and distinguishing color added to the new professors section on the navigation bar

Students List Page



Students with Supervisors

NAME	EMAIL	STUDENT NUMBER	COURSE CODE	YEAR	SUPERVISOR
Third Student	wrongemail3@gmail.com	20305555	CASE	4	Third Professor
Student	wrongemail@gmail.com	20309616	CASE	3	professor
Second Student	wrongemail2@gmail.com	20309999	ACM	4	Second Professor

Figure 49: Students List Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent table design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the students list page

Offer Informative Feedback.

 Students without a supervisor are in a separate table to students with supervisors for the admin to easily view

Design Dialog to Yield Closure.

 No Design dialogue to yield closure required, admin will only need to view the data on all students

Offer Simple Error Handling.

• If the user is not an admin, redirect them to the login page, student homepage or professor homepage

Permit Easy Reversal of Actions.

 No reversal of action required, admin will only need to view the data on all students

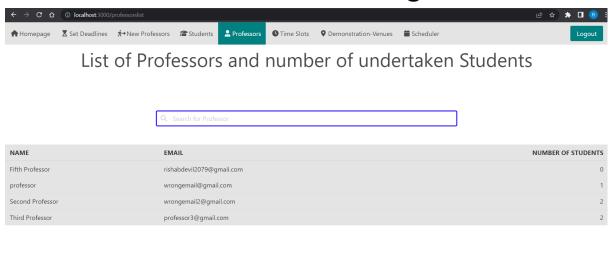
Support Internal Locus of Control.

The user can view students with and without supervisors in 2 separate tables

Reduce Short-Term Memory Load.

 Graduate/Student icon and distinguishing color added to the students section on the navigation bar

Professors List Page



Design made with Bulma CSS Framework. **Icons** used from FontAwesome Icons.

Figure 50: Professors List Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent table design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the professors list page

Offer Informative Feedback.

A search bar is provided to search for a professor(s) by name

Design Dialog to Yield Closure.

 No Design dialogue to yield closure required, admin will only need to view the data on all professors

Offer Simple Error Handling.

• If the user is not an admin, redirect them to the login page, student homepage or professor homepage

Permit Easy Reversal of Actions.

 No reversal of action required, admin will only need to view the data on all professors

Support Internal Locus of Control.

• A search bar is provided to search for a professor(s) by name

Reduce Short-Term Memory Load.

 Professor icon and distinguishing color added to the professors section on the navigation bar

Professors Added Time Slots Page

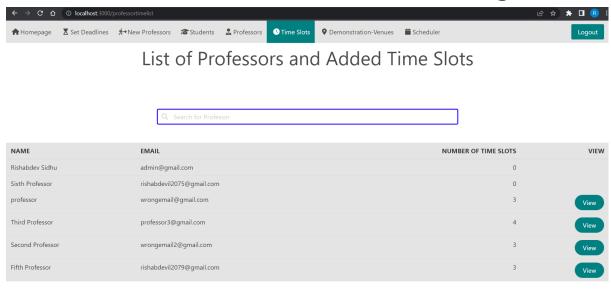


Figure 51: Professors and Number of Time Slots List Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent table design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the timetable list page

Offer Informative Feedback.

The View button highlights when hovering over it

Design Dialog to Yield Closure.

 After clicking view, a new tab is opened for that professor and their added time slots

Offer Simple Error Handling.

• If the user is not an admin, redirect them to the login page, student homepage or professor homepage

Permit Easy Reversal of Actions.

 No reversal of action required, admin will only need to view the data on all professors and their added time slots

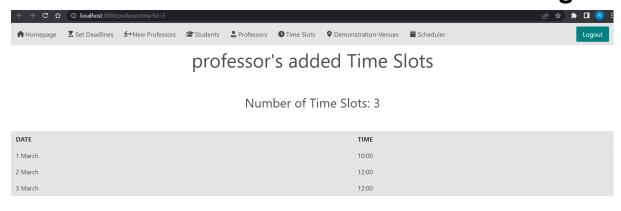
Support Internal Locus of Control.

A search bar is provided to search for a professor(s) by name

Reduce Short-Term Memory Load.

 Calendar icon and distinguishing color added to the timetable section on the navigation bar

Individual Professor Added Time Slots Page



Design made with Bulma CSS Framework. Icons used from FontAwesome Icons.

Figure 52: Individual Professor and Added Time Slots List Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent table design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the each individual professor's time slot page

Offer Informative Feedback.

A title is displayed to show the number of time slots

Design Dialog to Yield Closure.

 No Design dialogue to yield closure required, admin will only need to view the data on a professors added time slots

Offer Simple Error Handling.

• If the user is not an admin, redirect them to the login page, student homepage or professor homepage

Permit Easy Reversal of Actions.

• The admin can simply close the tab to go back to the professors list of added time slots page

Support Internal Locus of Control.

 No internal locus of control required, admin is only viewing data on a professors added time slots

Reduce Short-Term Memory Load.

• A title is displayed to show the number of time slots so the user does not have to switch tabs to remember how many time slots that professor has

Schedule Demonstration Timetable Page

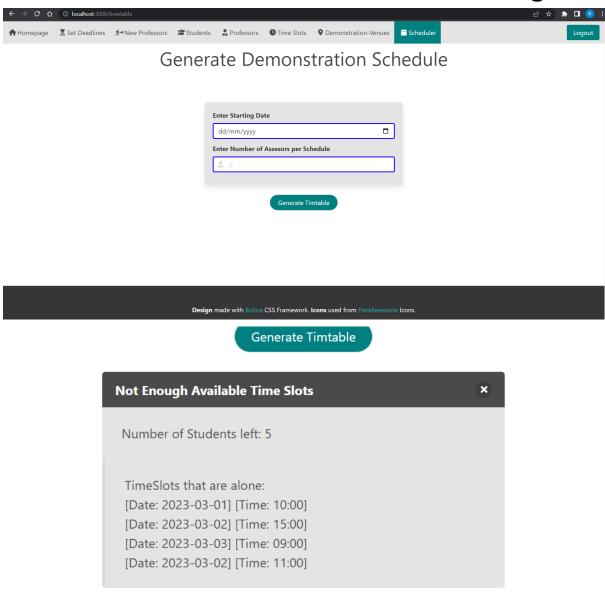


Figure 53: Schedule Demonstration Timetable Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the timetable scheduler page

Offer Informative Feedback.

• The Generate Timetable button highlights when hovering over it

Design Dialog to Yield Closure.

 After Submitting, the page will change to display that a timetable has been generated

Offer Simple Error Handling.

- If the user is not an admin, redirect them to the login page, student homepage or professor homepage
- If a field isn't filled in, a message is displayed prompting the user to fill it in

Permit Easy Reversal of Actions.

 Unable to add reversal of action, once the form is submitted, the timetable is generated

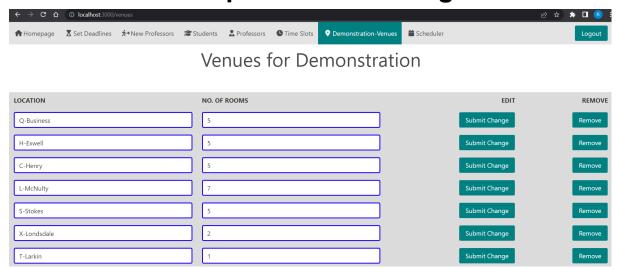
Support Internal Locus of Control.

- The user can choose what starting date to provide and number of assessors
- A confirmation box is displayed before generating the timetable to ask the user if they are sure as they cannot go back

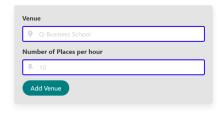
Reduce Short-Term Memory Load.

- Icons are added to the form displaying a calendar/date and person/assessor
- Calendar icon and distinguishing color added to the scheduler section on the navigation bar

Add/Update Venues Page



Add a Venue



Design made with Bulma CSS Framework: **Icons** used from FontAwesome Icons.

Figure 54: Venues Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design
- Consistent table design

Enable Frequent Users to Use Shortcuts.

• Unable to add any shortcuts for the venues page

Offer Informative Feedback.

All buttons highlight when hovering over them

Design Dialog to Yield Closure.

- When a venue is added, the page reloads to display the added venue on the table
- When a venue is edited, the page reloads to display the added venue on the table

 When a venue is removed, the button is replaced with a text displaying "REMOVED"

Offer Simple Error Handling.

- If the user is not an admin, redirect them to the login page, student homepage or professor homepage
- If a field isn't filled in, a message is displayed prompting the user to fill it in

Permit Easy Reversal of Actions.

• When the admin adds a venue, the venue can be removed or edited

Support Internal Locus of Control.

• Admin can choose the venues and number of available places

Reduce Short-Term Memory Load.

- Icons are added to the form displaying a location pin/venue and pin/number of places
- Location icon and distinguishing color added to the venues section on the navigation bar

Assign Student to Supervisor Page

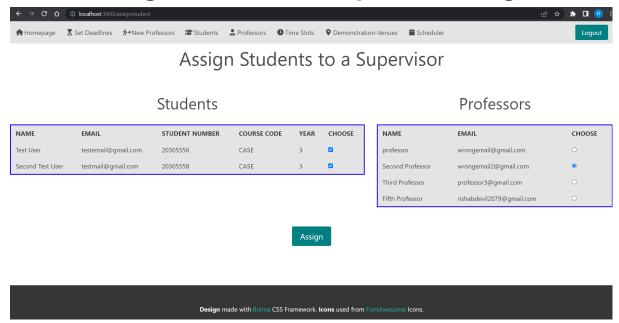


Figure 55: Assign Student Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent table design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the assign student page

Offer Informative Feedback.

 Students that are chosen have a box ticked next to them and only one professor which can be chosen as one box ticked on the table

Design Dialog to Yield Closure.

 The page reloads to show the admin that the chosen student(s) have been assigned a project supervisor

Offer Simple Error Handling.

 If the user is not an admin, redirect them to the login page, student homepage or professor homepage

Permit Easy Reversal of Actions.

 No reversal of action possible, once a supervisor has been assigned it cannot be changed

Support Internal Locus of Control.

• The admin can view 2 tables, one with all students without a project supervisor and the other with a list of all professors

Reduce Short-Term Memory Load.

• Checkboxes and radio boxes are displayed to remind the user of their choice

Edit Student Details Page

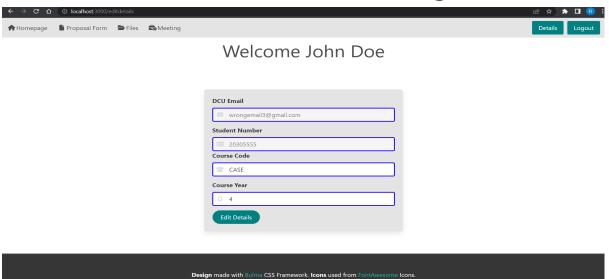


Figure 56: Edit Details Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design

Enable Frequent Users to Use Shortcuts.

 Unable to add any shortcuts to the edit page apart from the Details button on the navigation bar

Offer Informative Feedback.

- The edit details button highlights when hovering over it
- Details that cannot be changed are disabled and upon hovering over them displays a stop icon

Design Dialog to Yield Closure.

 After the user enters their details, the page is reloaded the show the user their changed details

Offer Simple Error Handling.

- If the user submits without changing any details, there will be no error
- If the user is not a student they will be redirected

Permit Easy Reversal of Actions.

• The student can simply change their details as many times as they wish

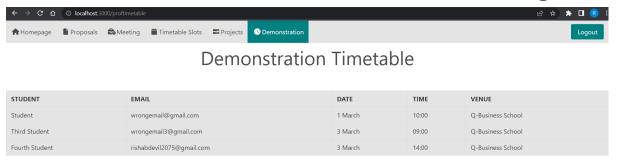
Support Internal Locus of Control.

User's can choose what details they want to change to

Reduce Short-Term Memory Load.

 Icons are added to the form displaying a mail/email, id/student number, graduation cap/course and number/year

Professor Demonstration Timetable Page



Design made with Bulma CSS Framework. Icons used from FontAwesome Icons.
Design frade with burne C33 Framework. Icons used from Fortzwesome Icons.

Figure 57: Professor Timetable page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent table design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the professor demonstration timetable page

Offer Informative Feedback.

The date has been changed to a more user friendly readable format

Design Dialog to Yield Closure.

 No Design dialogue to yield closure required, users will only need to view the data on their demonstration timetable

Offer Simple Error Handling.

If the user is not a professor, redirect them

Permit Easy Reversal of Actions.

No reversal of action required, user is only viewing data

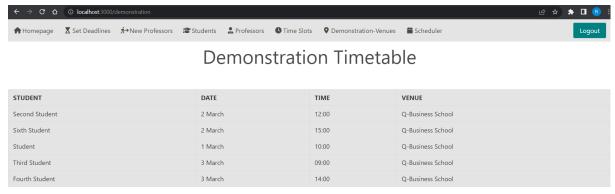
Support Internal Locus of Control.

No internal locus of control required, user is only viewing data

Reduce Short-Term Memory Load.

 Clock icon and distinguishing color added to the Demonstration section on the navigation bar

Admin Demonstration Timetable Page



Design made with Bulma CSS Framework. Icons used from FontAwesome Icons.

Figure 58: Demonstration Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent table design

Enable Frequent Users to Use Shortcuts.

 If the admin goes to the schedule timetable page they are redirected here if the timetable has already been generated for the year

Offer Informative Feedback.

The date has been changed to a more user friendly readable format

Design Dialog to Yield Closure.

 No Design dialogue to yield closure required, admin will only need to view the data on the demonstration timetable

Offer Simple Error Handling.

• If the user is not an admin, redirect them

Permit Easy Reversal of Actions.

No reversal of action required, user is only viewing data

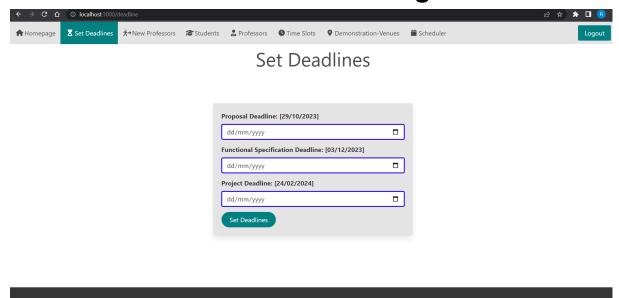
Support Internal Locus of Control.

No internal locus of control required, user is only viewing data

Reduce Short-Term Memory Load.

 Displayed the dates by day and month name instead of the regular YYYY/MM/DD format

Admin Deadline Page



Design made with Bulma CSS Framework, Icons used from FontAwesome Icons

Figure 59: Deadline Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts to the deadline page

Offer Informative Feedback.

The set deadlines button highlights when hovering over it

Design Dialog to Yield Closure.

 After the user enters the dates, the page is reloaded to show the admin the set dates

Offer Simple Error Handling.

- If the user is not an admin, redirect them
- If a field is not filled in, the user will be prompted to fill the field in

Permit Easy Reversal of Actions.

The admin can simply change the dates as many times as they wish

Support Internal Locus of Control.

Admin can choose what dates they wish to set

Reduce Short-Term Memory Load.

 Hourglass icon and distinguishing color added to the deadline section of the navigation bar

Project Supervision Meeting Form Page

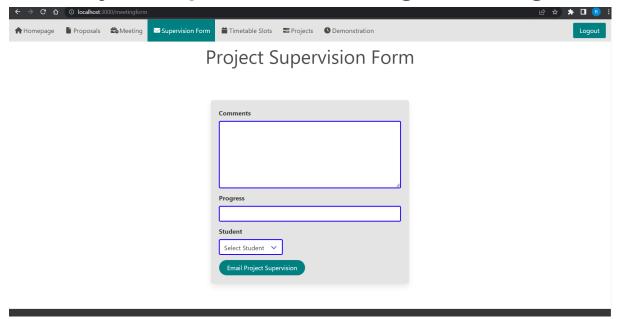


Figure 60: Project Supervision Meeting Form Page

Strive for Consistency

- Same colors from the color palette
- Consistent font
- Consistent form design

Enable Frequent Users to Use Shortcuts.

Unable to add any shortcuts for the meeting form page

Offer Informative Feedback.

• The Email Project Supervision button highlights when hovering over it

Design Dialog to Yield Closure.

 After submitting the form, the title will display the email was sent and the student's name

Offer Simple Error Handling.

• If a field isn't filled in, a message is displayed prompting the user to fill it in

Permit Easy Reversal of Actions.

• No reversal of action possible, cannot delete a sent email

Support Internal Locus of Control.

Users can choose what to record for the meeting

Reduce Short-Term Memory Load.

 Email icon and distinguishing color added to the meeting form section on the navigation bar

References

[1] [https://capian.co/shneiderman-eight-golden-rules-interface-design]

[Title: Shneiderman's Eight Golden Rules of Interface Design]

[Author: NA] [Year: NA]

[2]

<u>rules[https://www.interaction-design.org/literature/article/shneiderman-s-eight-golden-will-help-you-design-better-interfaces]</u>

[Title: Shneiderman's Eight Golden Rules Will Help You Design Better Interfaces]

[Author: Euphemia Wong]

[Year: 2021]

[3] [Used as cross reference and extra help]

[https://www.uxmatters.com/mt/archives/2022/10/applying-the-8-golden-rules-of-user-interface-design.php]

[Title: Applying the 8 Golden Rules of User-Interface Design]

[Author: Anna Siarkiewicz and Dawid Sobolewski]

[Year: October 17, 2022]