Conference Management Tool for "International Conference on Application Frameworks (ICAF)"

1. Introduction

The implemented features are as follows;

- User sign up

Any guest user can use the sign up form to register to the system. First everyone need to add the basic user details in the form. Then if the frontend validation passes, the registering user can select the user type. Based on the selected user type, the next part of the sign up form changes. If the user selects the type as “Attendee”, credit card details are needed to be entered for the conference attendance payment. If the user selects the type as “Researcher” or “Workshop Presenter”, relevant document needed to be uploaded. User can also view the uploaded document from the sign up form. After completing the sign up form, user can click on the “Sign up” button and if the signing up successful, will be redirected to their user account.

- User account

User accounts differ based on the user role. If the user is an “Attendee”, the entered contact details can be viewed. If the user is a “Researcher”, the entered contact details and the document can be viewed. If needed the document can also be downloaded. The status of the document is also displayed in the user account. The status can be either “pending”, “approved” or “rejected”. If only the status is “approved”, the researcher can proceed for making the payment for the research paper presentation. After making the payment the status will be displayed as “paid”. If the user is a “Workshop Presenter”, the entered contact details and the document can be viewed. Same as before, If needed the document can also be downloaded and the status of the document is also displayed as either “pending”, “approved” or “rejected”.

- Role based authentication

Any user who has previously signed up can sign in to the system using the sign in form. After entering the credentials, if they are validated, users are redirected to the user profile. Only the users with role “Admin” can access the admin dashboard. Only the users with “Admin” and “Reviewer” roles can view the uploaded research papers and workshop presentations. Only the users with “Admin” and “Editor” roles can view the approved and un-approved conference detail submissions. Users with “Attendee”, “Researcher” or “Workshop Presenter” roles can only access their respective user accounts and the public pages which can also be accessed by the guest users. The public pages include a download page, where anyone can download sample research papers, sample workshop proposals, the research paper template and the workshop proposal template.

- Admin Dashboard

An admin can look summary of the system and he can get some details about main categories. So, admin can observe the total of Researchers, Works Shops and Attendees. So, admin can get summary

details of Research Papers. There is a count of Pending, Approvals and Rejects so admin can get summary of workshops. There is a count of pending, Approvals, Rejects An admin can get all conferences list, all presentation list and all workshops were added by editor so admin can give his approval for correct conference of the year. Admin can get the Approved Conference only and can check the details quickly.

- Approval Conference Details

An admin have to give the approval of right conference details so admin can get details after clicking the conferences and admin can get brief details of that conference after he want to check the more details admin can switch to the more details after clicking more details button then admin can check all the details and admin can give the approval of that conference by clicking publish button then status field switch to the “Approved”.

- Editor

Editor is an admin of the system. He can manage conferences. First he have to login as the editor. There is an editor panel in editor page. He can manage conference details using that panel. If he clicked add conference, create conference page appears and he can add a conference. If he clicked workshops & presentations, he can add presentations and workshops to the selected conferences. He can also view all the conferences, presentations and workshops. He can update conferences too.

- Home page

This is the page that appears first when a user access the website. User can also view upcoming conference details there.

- View All Researchers and workshop presenters and Review a document

The users with “Reviewer” roles can view list of user details which belongs to “Researcher” or “Workshop Presenter” roles and the uploaded research papers and workshop presentations and. Once reviewer click one user it will display the uploaded document details of that single user. Reviewer has ability to go through the uploaded document and grade it as “Accept” or “Reject”. If the reviewer click accept button the document status will update as “Accepted”, if reviewer click decline button the document status will update as “Rejected” and if not the document status will remains as “Pending”. Once reviewer Accept a research paper that particular researcher will be informed about the payment via sending an automatic email

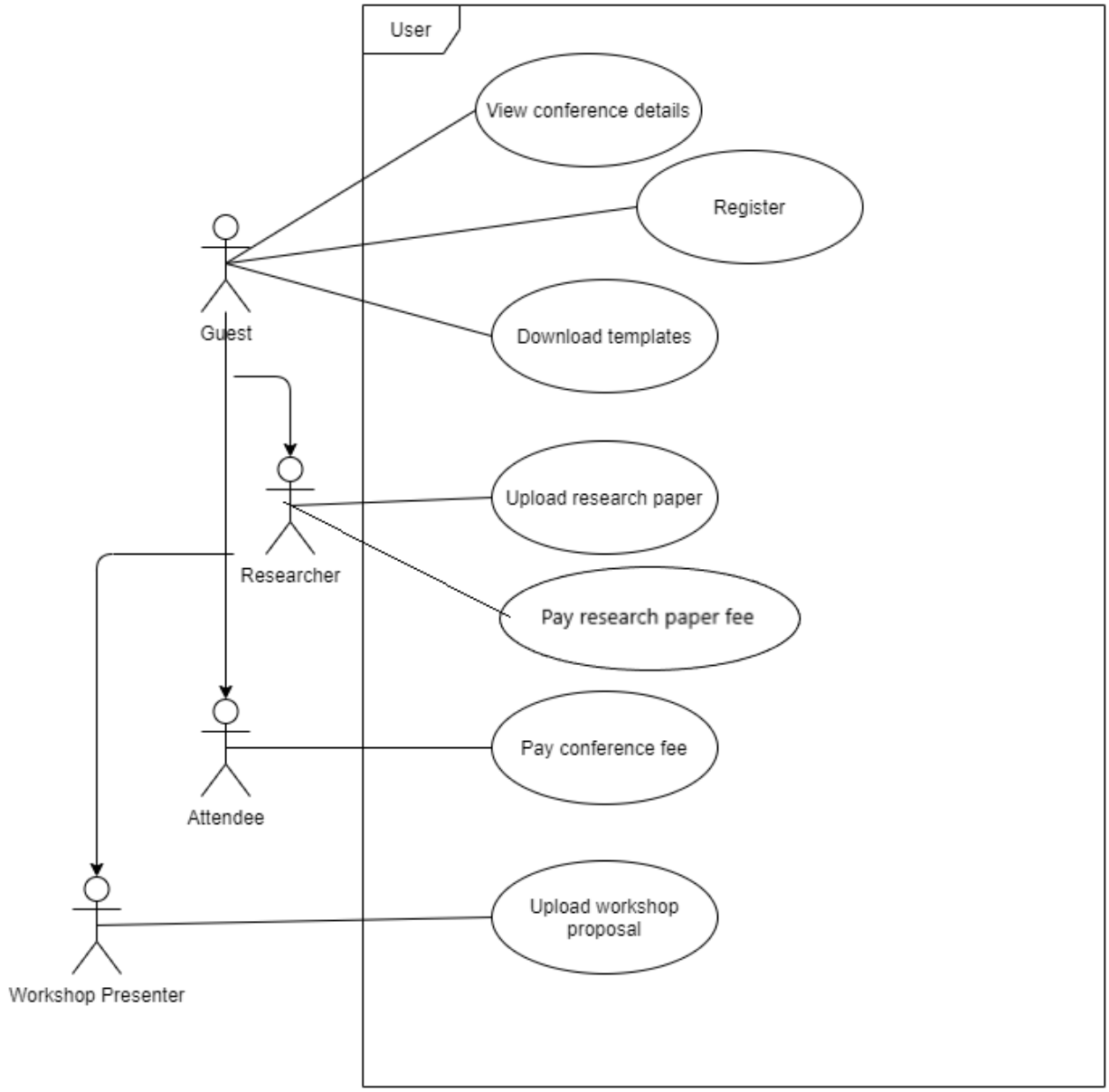
2. Design and Implementation

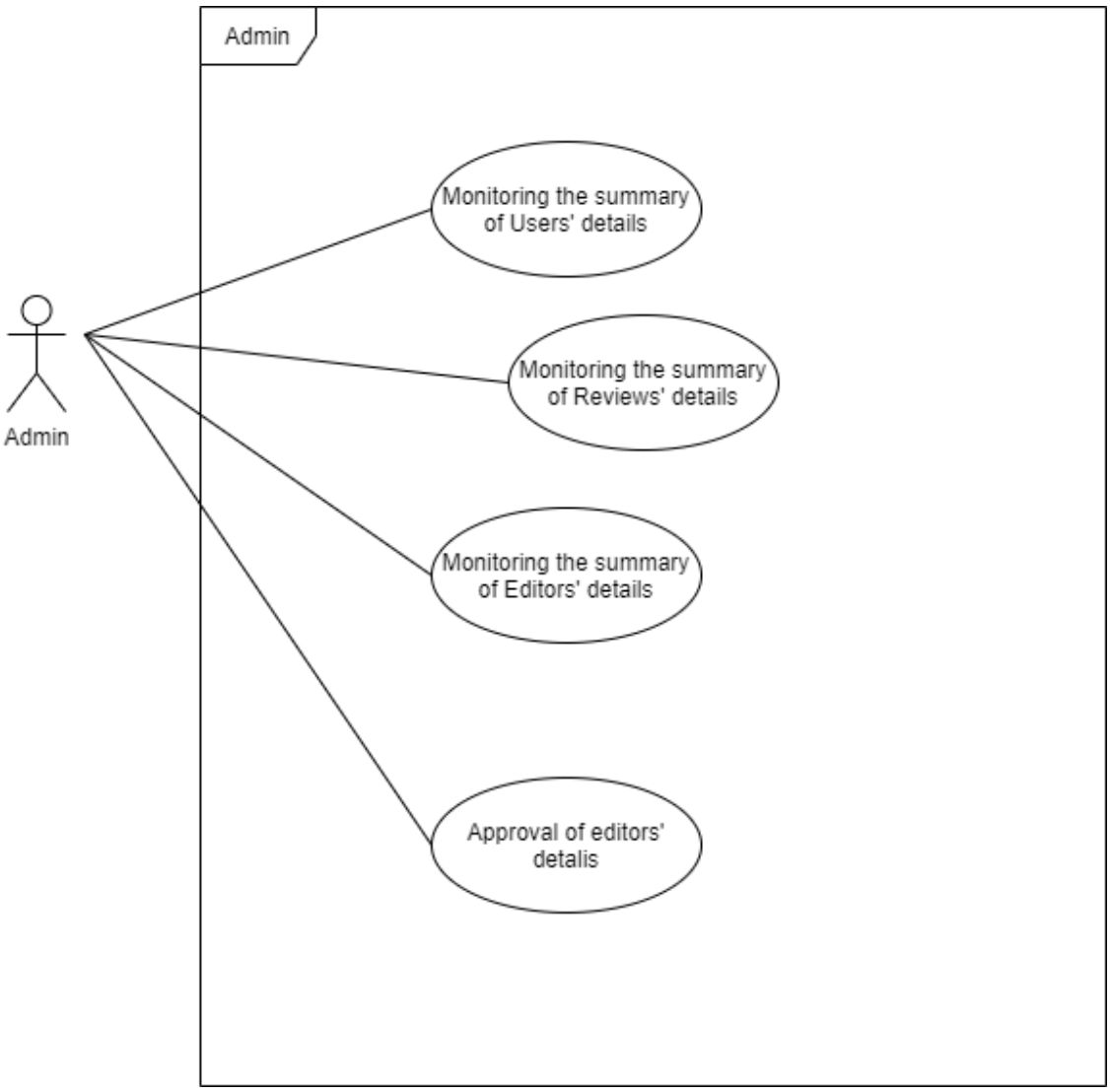
Justification of Used Libraries

- "bootstrap": For styling.
- "history": To get access to previously visited pages.
- "react-bootstrap": For styling React components.
- "react-doc-viewer": To view PDFs in the website
- "react-dom": For routing.
- "react-dropdown": To create a complex dropdown menu.
- "react-router": For routing.
- "react-file-base64": To handle files and save them in base64 form.
- "react-router-dom": For routing.
- "react-toastify": For styles toast messages.
- "react-transition-group": For animations.
- "reactstrap": For pre made bootstrap styled react components.

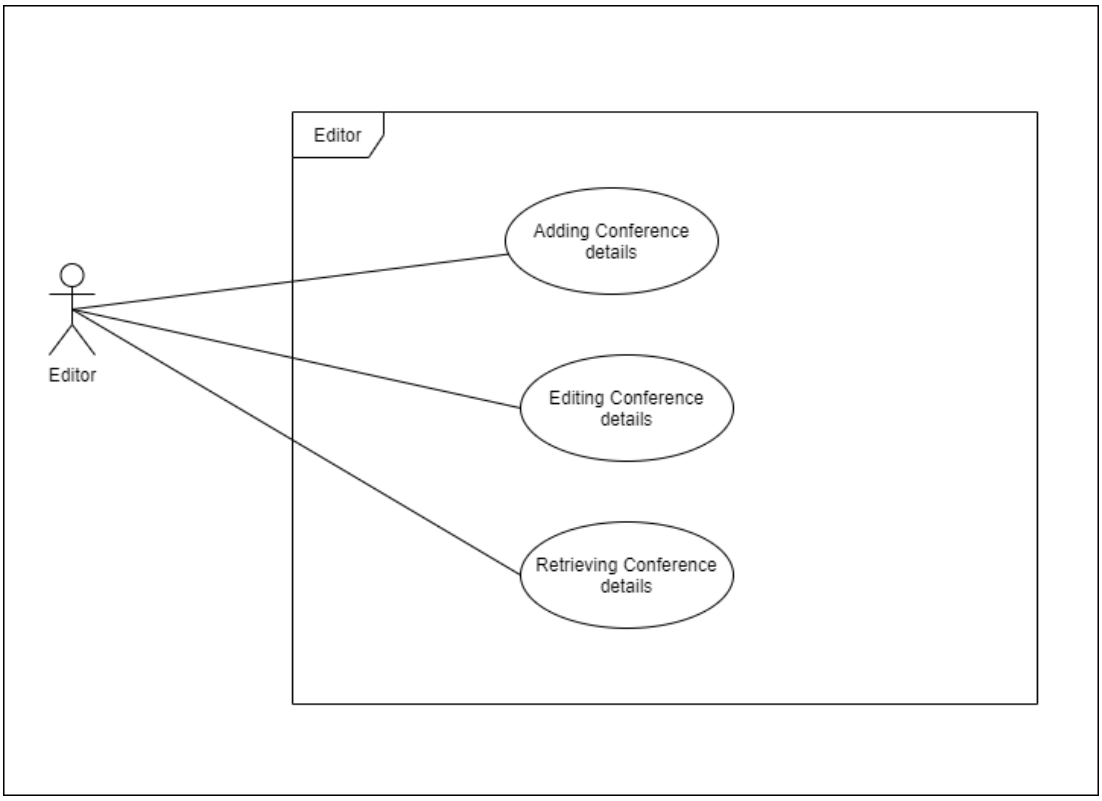
Use Case Diagrams

Authentication, authorization and user details handling use case

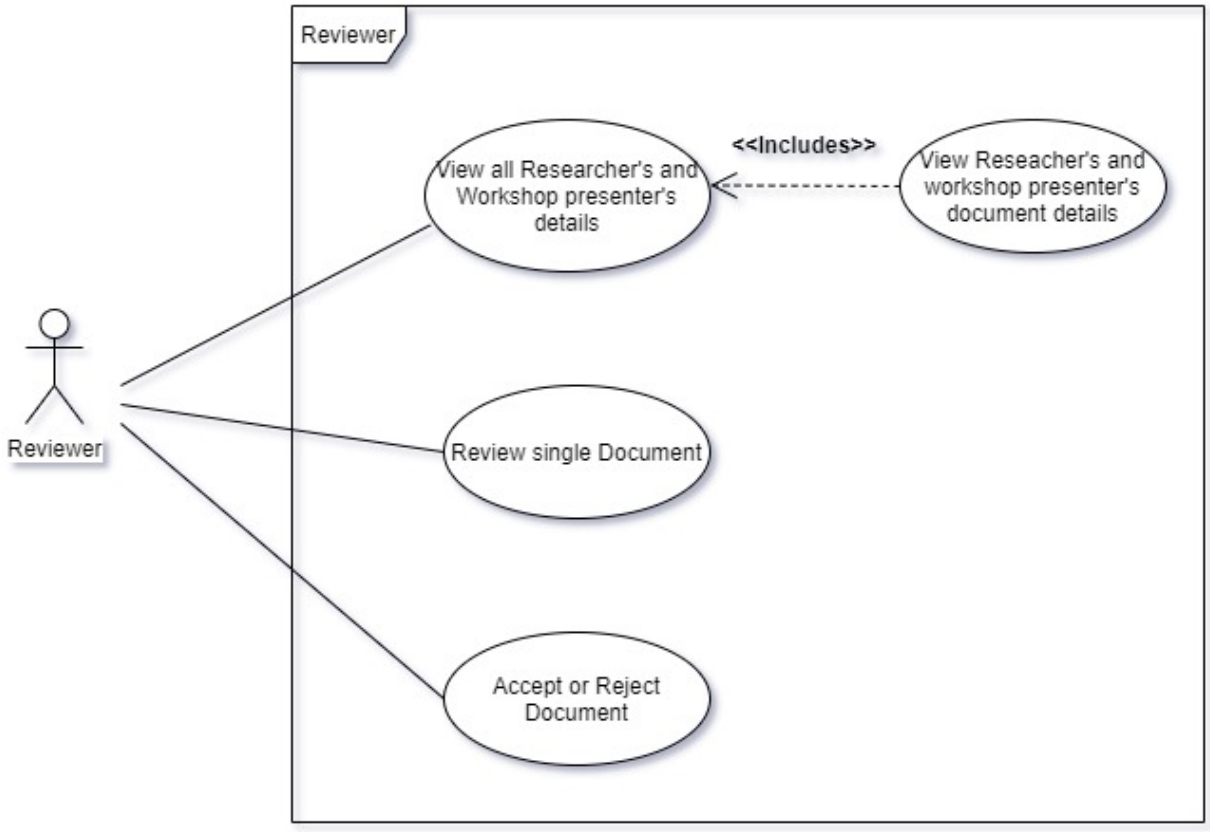



Admin
Monitoring the summary of Users' details
Monitoring the summary of Reviews' details
Monitoring the summary of Editors' details
Approval of editors' detalis
Admin

Managing conference details



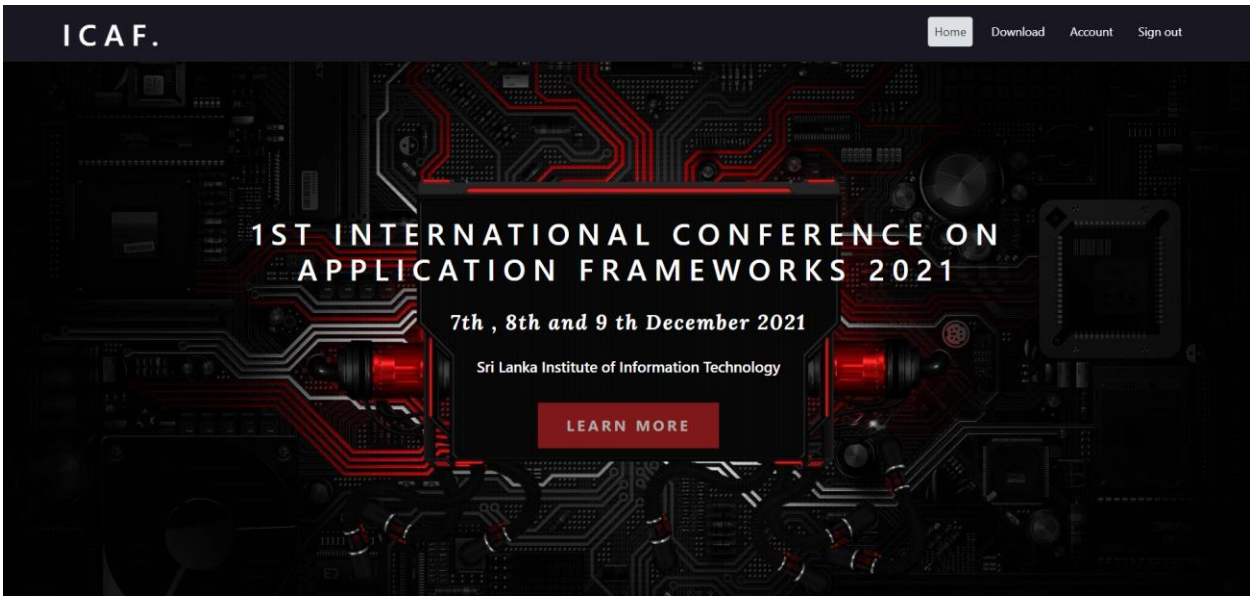
Researcher’s and workshop presenter’s document approval handling



Screenshots

- **Landing page**

All the necessary details regarding the conference are available through the landing page. Including special dates, guest speakers, etc.

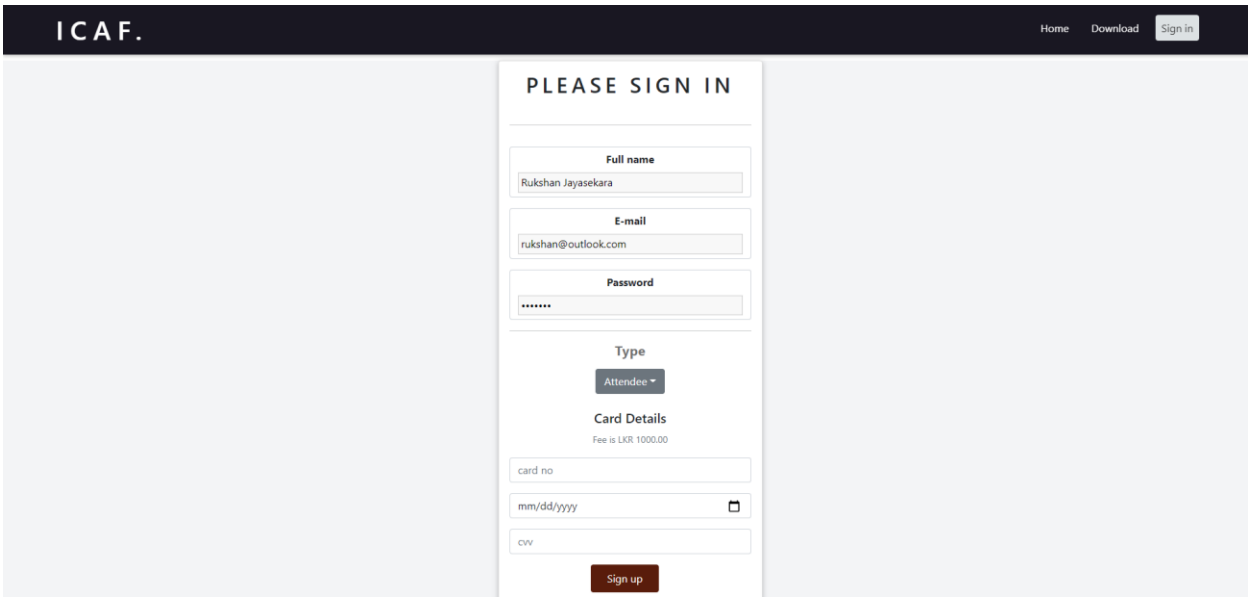


- **Sign up**

A user who has not registered can register as either an attendee, a researcher or a workshop presenter via the sign up form.

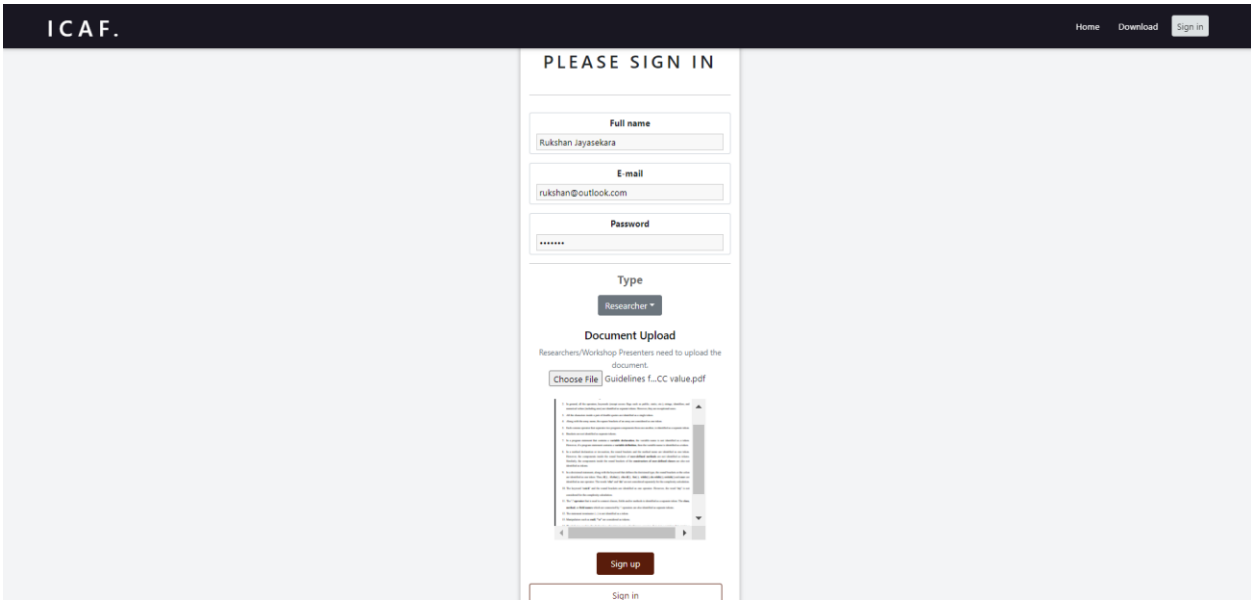
- Attendee

If a user registers as an attendee, a payment should be made up front. This is the attendance fee for the conference.



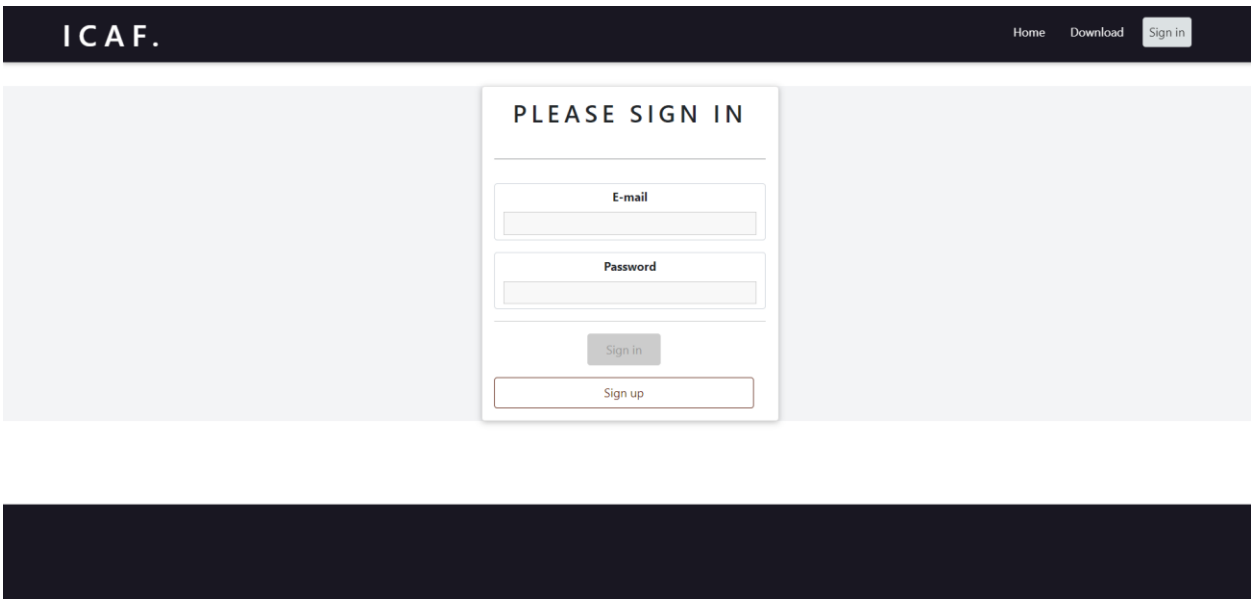
- Researcher & Workshop presenter

When a user registers as either a researcher or a workshop presenter, the respective document should be uploaded. For a researcher, this is the research paper. For a workshop presenter, this is the workshop proposal.



- **Sign in**

Any user who has previously signed up can sign in to the system using the sign in form. After entering the credentials, if they are validated, users are redirected to the user profile.

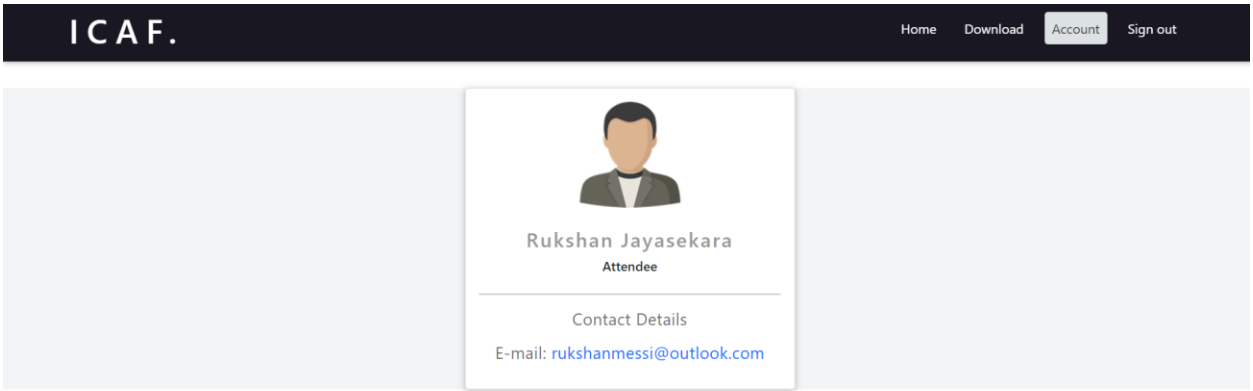


- **User profile**

User accounts differ based on the user role.

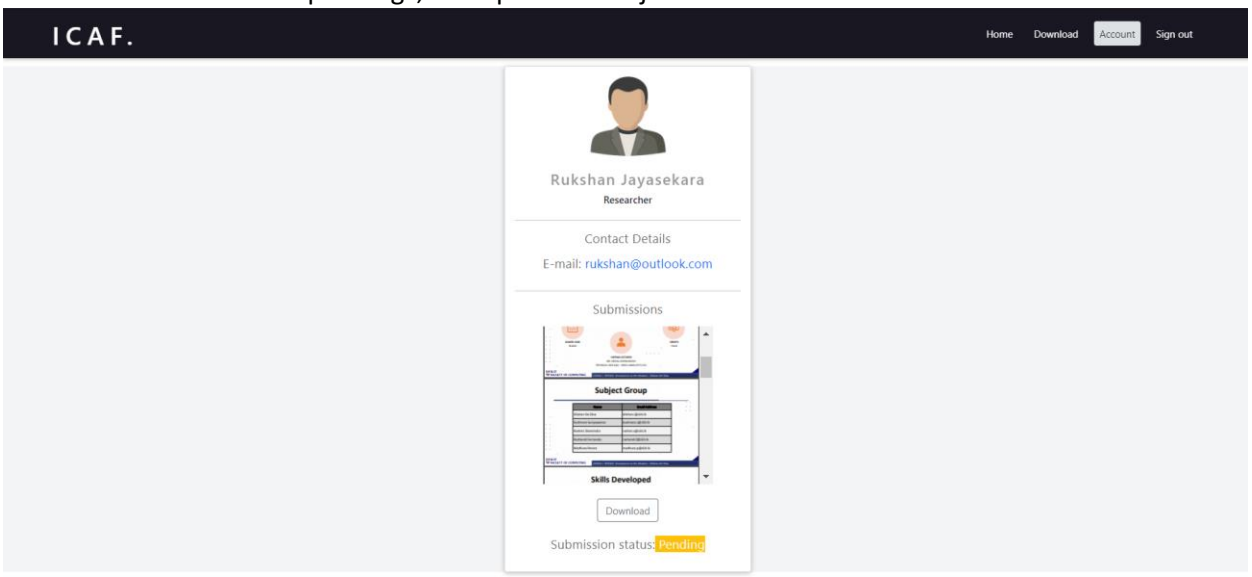
- Attendee

If the user is an “Attendee”, the entered contact details can be viewed.

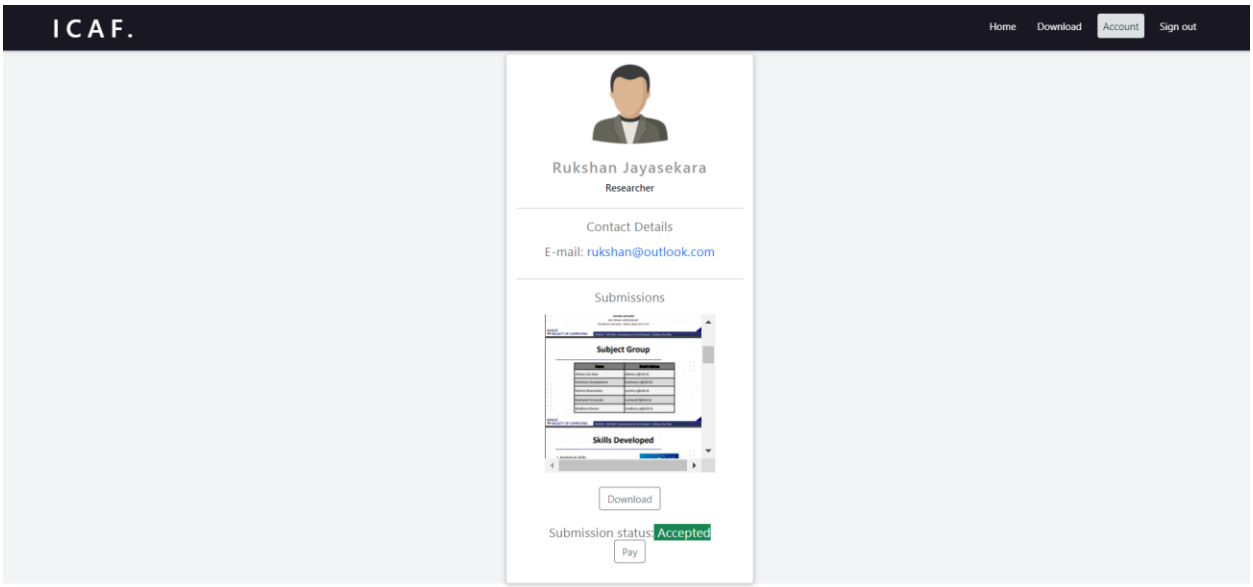


- Researcher

If the user is a “Researcher”, the entered contact details and the document can be viewed. If needed the document can also be downloaded. The status of the document is also displayed in the user account. The status can be either “pending”, “accepted” or “rejected”.



If only the status is “accepted”, the researcher can proceed for making the payment for the research paper presentation. After making the payment the status will be displayed as “paid”.

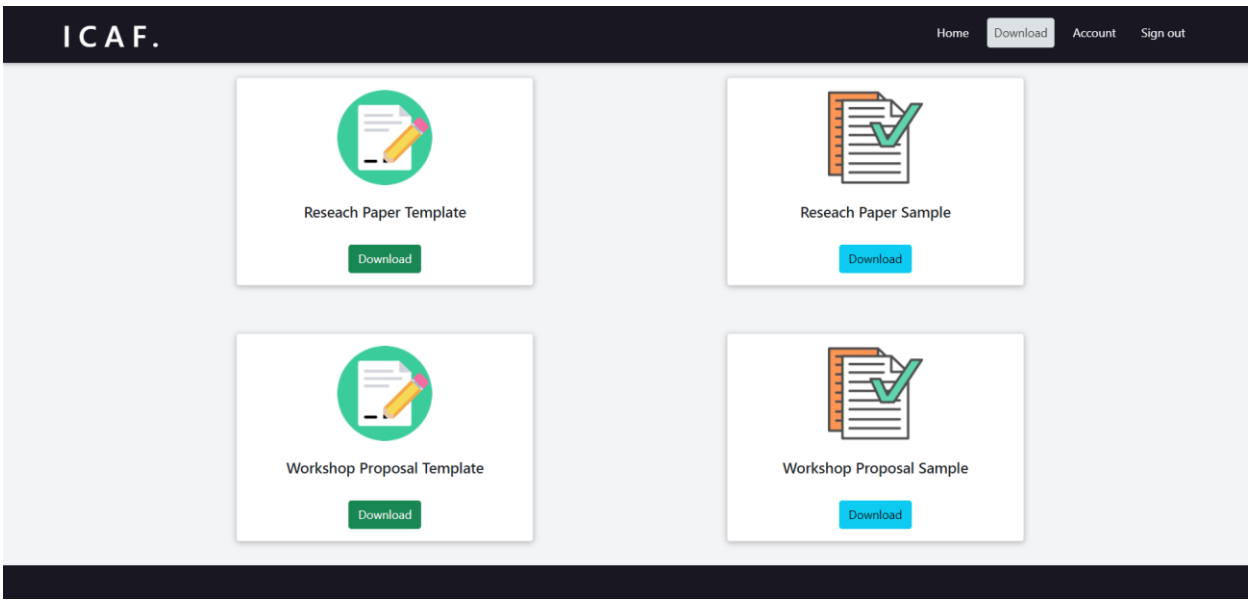


- Workshop presenter

If the user is a “Workshop Presenter”, the entered contact details and the document can be viewed. Same as before, If needed the document can also be downloaded and the status of the document is also displayed as either “pending”, “accepted” or “rejected”.

- **Downloads**

The public pages include a download page, where anyone can download sample research papers, sample workshop proposals, the research paper template and the workshop proposal template.



3. Conclusions

By doing this project, I could identify a real world problem, then come up with a solution for that problems, then sketch and design the solution and finally implement the solution based on the technologies to my knowledge within a limited amount of time.

For shortcomings, the authentication functionality could be improved with Auth 2.0. The payment gateway could be implemented with the Stripe API. The state handling could be improved with Redux.

4. References

https://www.eventbrite.ie/

https://www.exordo.com/

https://conference-service.com/

https://icac.org/

https://dl.acm.org/conference/icac

Appendix

Deployment: https://icaf-sliit.herokuapp.com/

Source code: https://github.com/rukshan99/coursera-react/tree/main/conference_management_tool