

# **Architecture Design Report**

## **Team Bridge**

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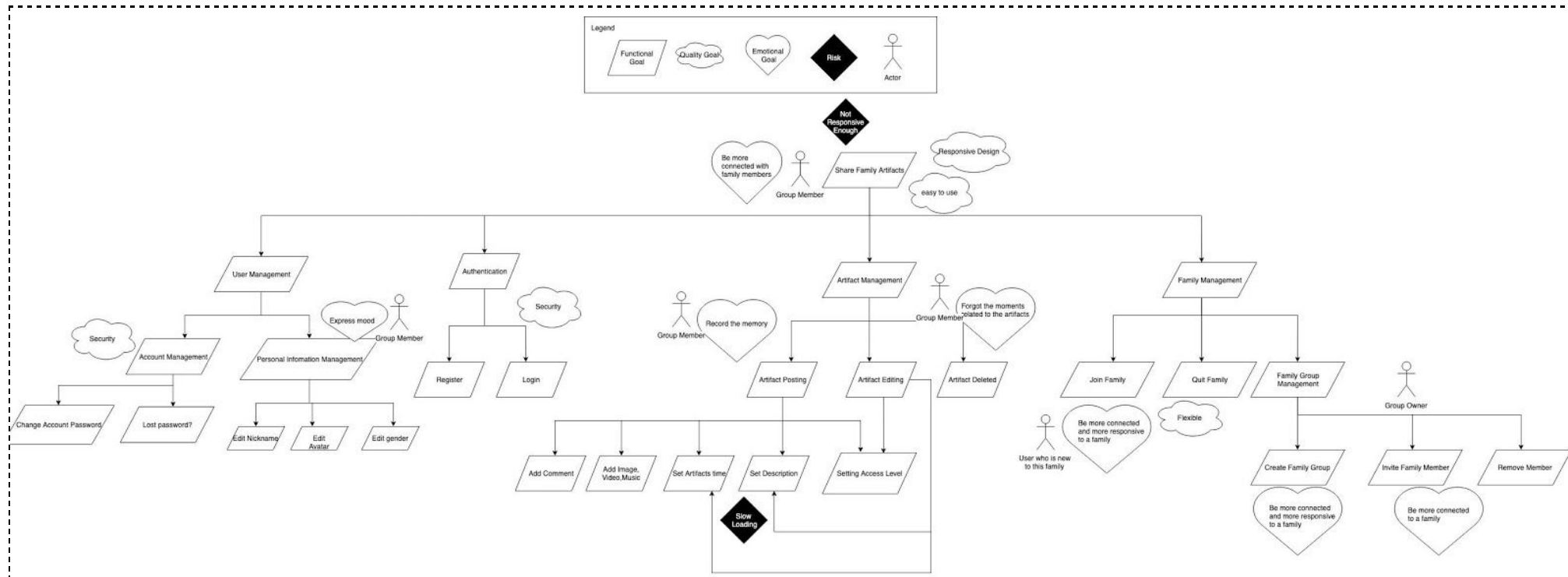
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# Goal Model

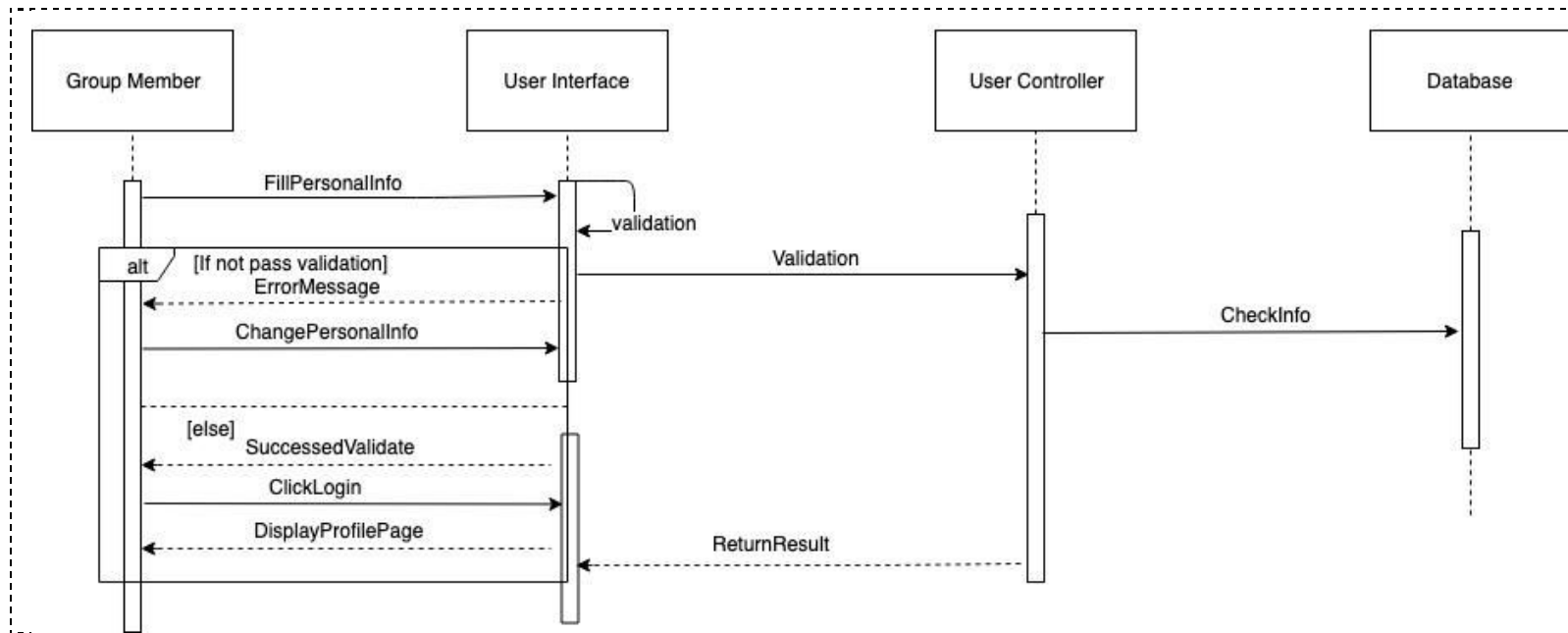


[Goal model in draw.io](https://draw.io)

When a new user accepted a group invitation by the group owner to join the family group, user will have access to all other family members in the group, increasing the interaction between family members and feel more connected to this family. When a group member posts an artifact, he/she is able to record his memory and able to express his feelings to other family members as artifacts can be viewed by everyone in the family.

# Sequence Diagrams

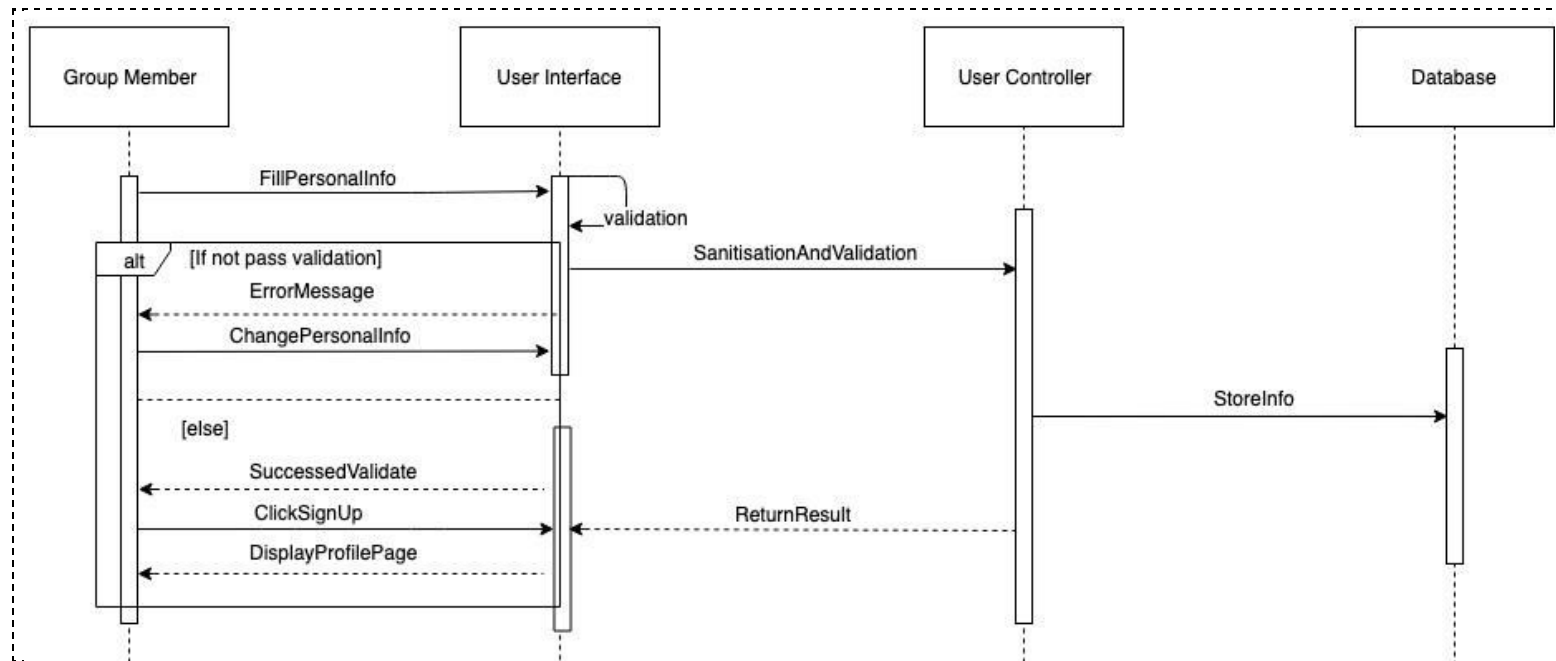
## Logic Sequence Diagram



[Login sequence diagram in draw.io](#)

To login, the group member, first needs to fill in the password and the username in a login form displayed in the user interface. Then the user interface will check whether the filled information follows from the prescribed format. If the validation is not passed, the group member cannot submit the form and needs to fill in the information in a correct format. If the filled information is in the correct format, then the account information sent to the user controller in the back-end which will interact with the database to check whether the password matches with the email address. If the group member input the correct email and password, display the profile page for the user in the user interface. Otherwise, display the login form again.

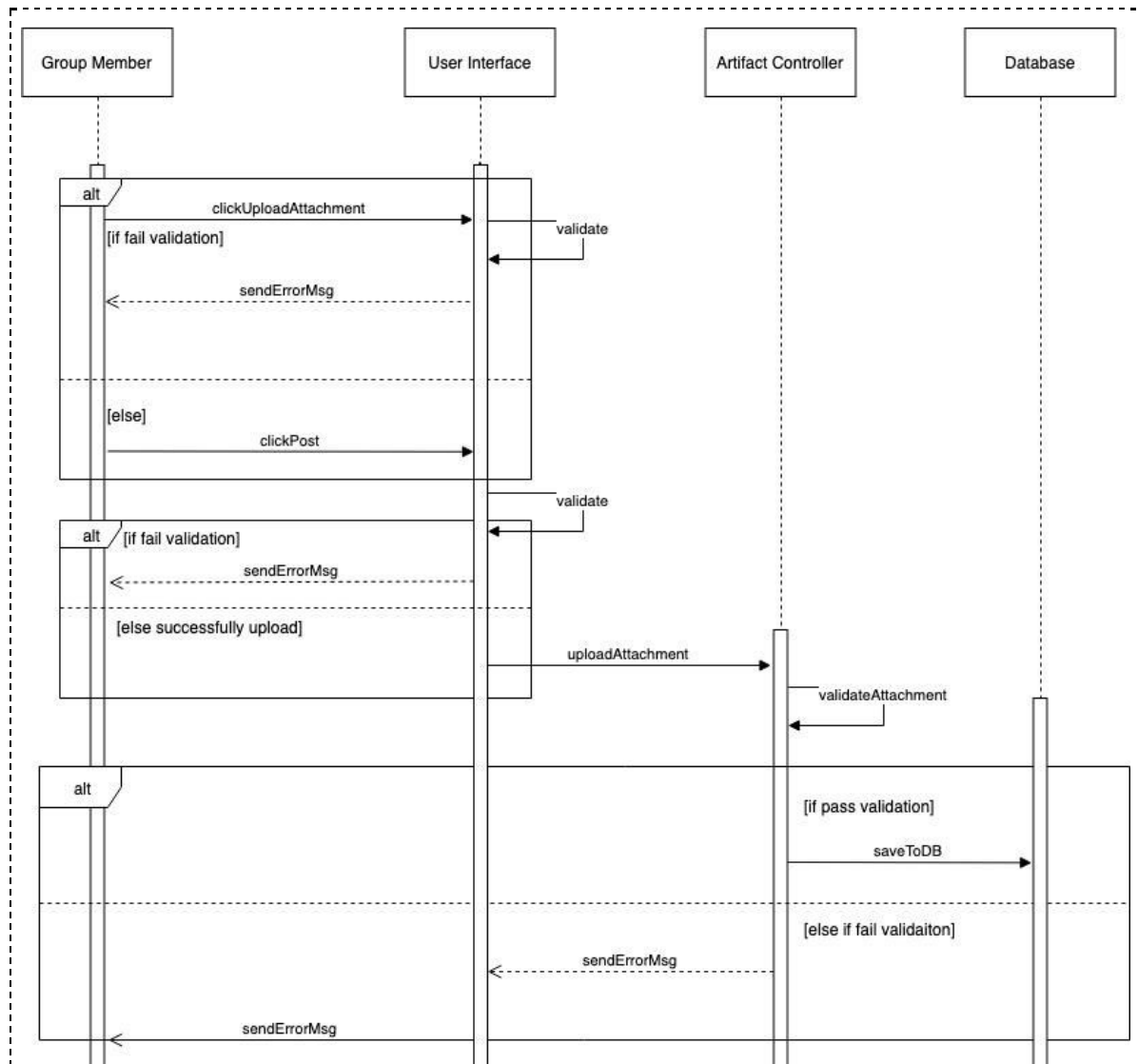
## Signup Sequence Diagram



[Signup sequence diagram in draw.io](#)

To register as a new group member for the website, the group member first needs to fill in the personal information in the register form displayed in the user interface. Then the user interface will check whether the filled information follows the prescribed format. If not pass which cannot submit the registration form and needs to fill in the information again. If pass, then the filled information is sent to the user controller in the back-end, which will interact with the database. If the back-end validation is passed, the new user's information is saved into the database, and the user interface will display the profile page for the new user. If the back-end validation fails, the register form is displayed again for the group members.

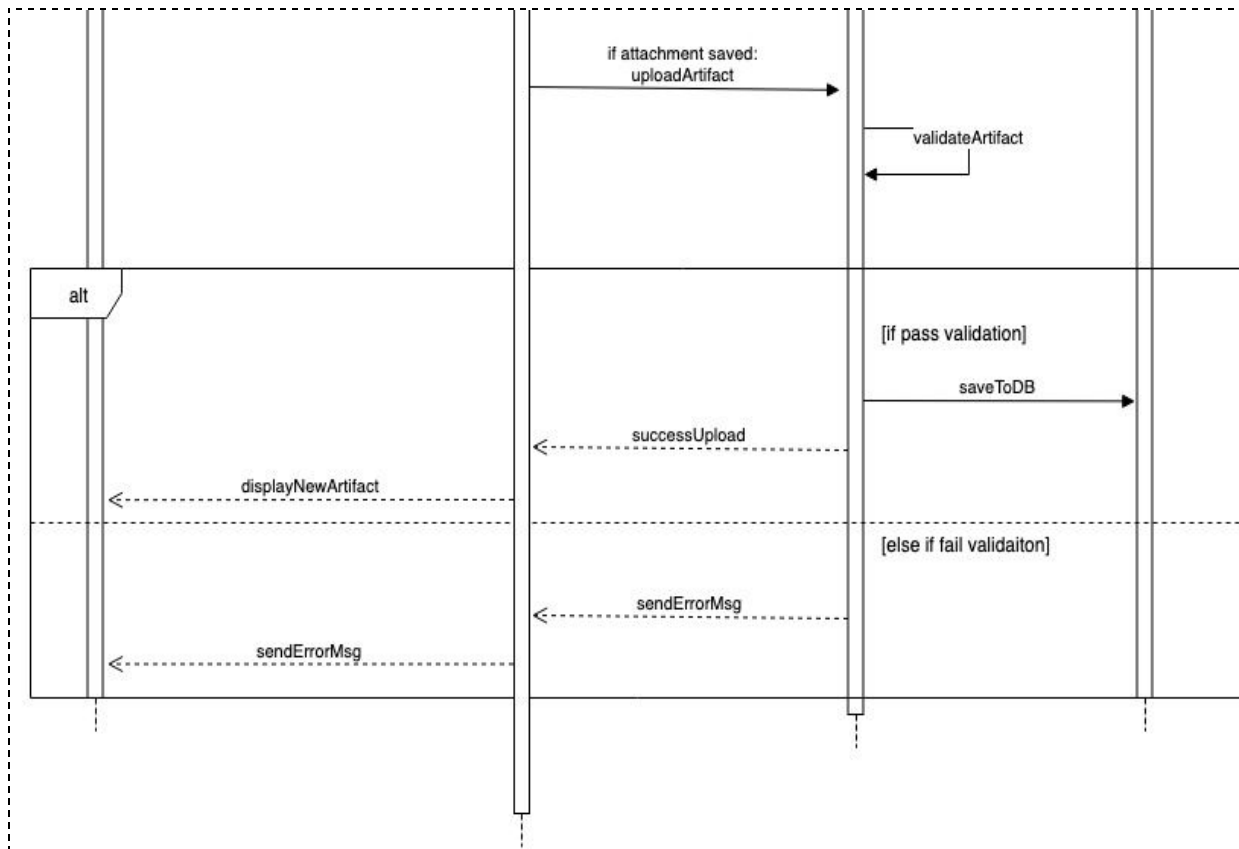
## Posting Artifact Sequence Diagram



To upload a family artifact, the group member first needs to fill in the information in the posting form displayed in the user interface. Then, the user interface will validate the filled information.

If fail the validation, the group member cannot post the artifact, and needs to fill in the required information again. If pass the validation, the entire artifact is uploaded to the artifact controller in the back-end.

The artifact controller will first check whether the attachment is in the correct format or not. If not, the artifact cannot be saved, the user interface will display an error message to the user. If the



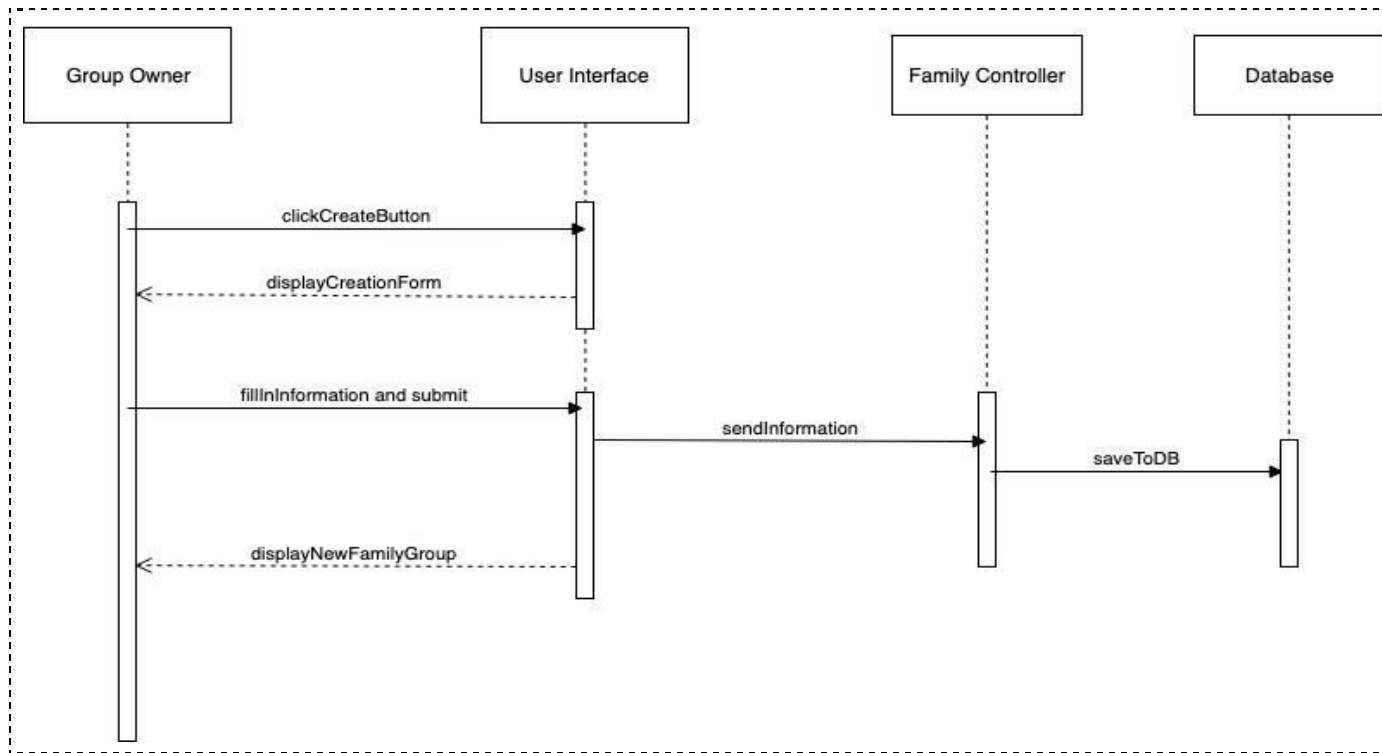
attachment passes the validation, it will be saved to the database. Then, the text part of the artifact is being validated.

If fails the validation, an error message is displayed in the user interface. If the artifact passes the validation, then the new artifact is displayed in the user interface for the group members.

[Posting artifact sequence diagram in draw.io](https://draw.io)



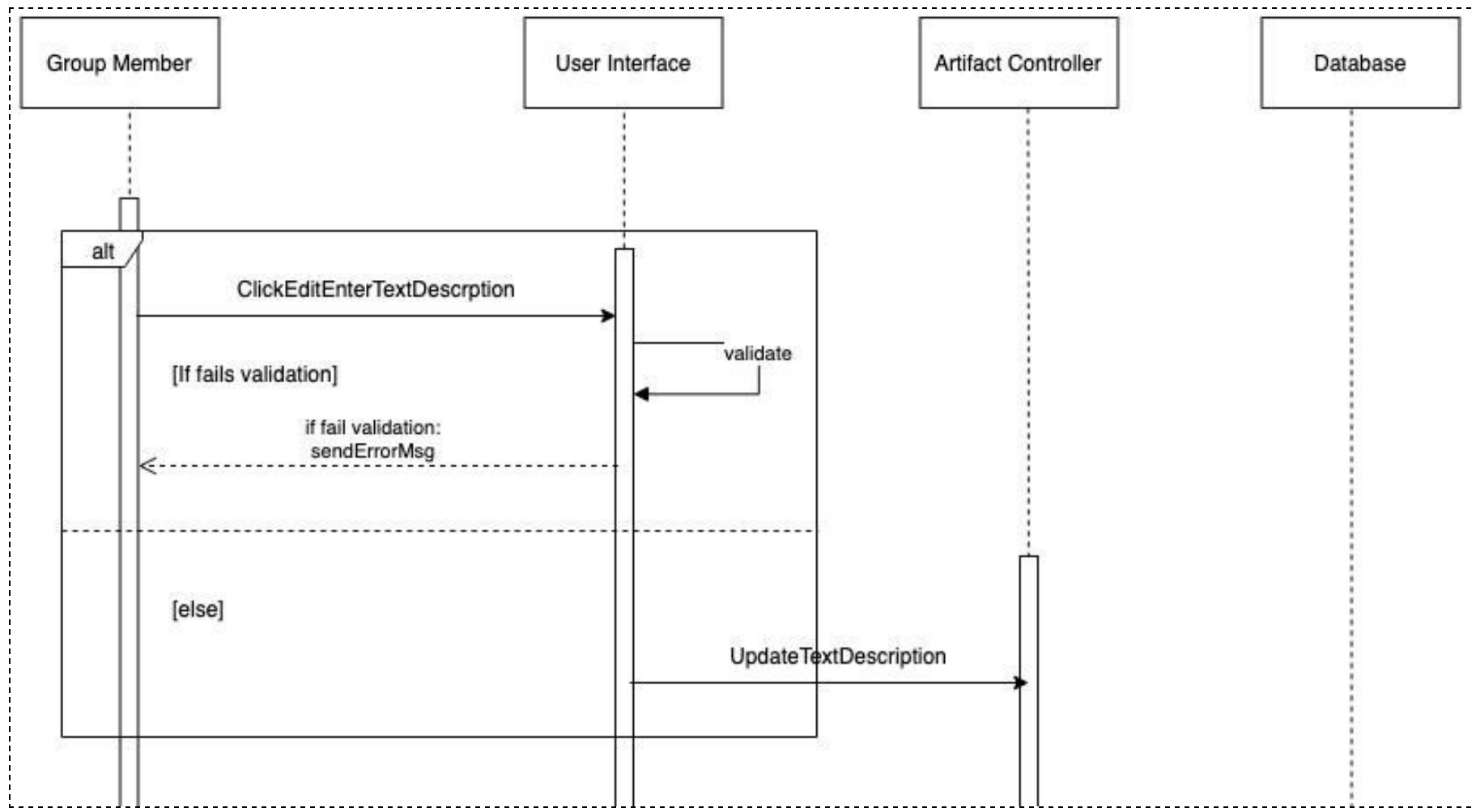
## Create Family Group Sequence Diagram

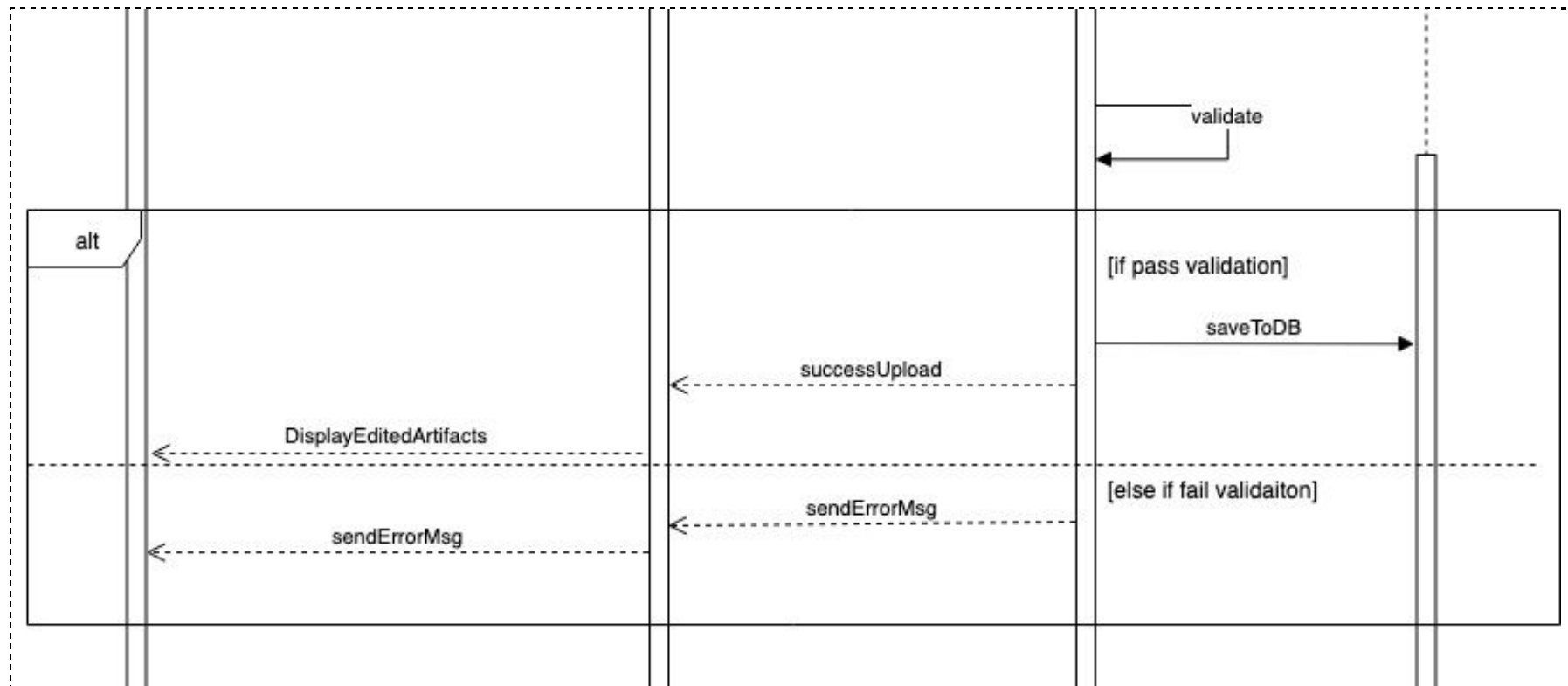


[Create family group sequence diagram in draw.io](#)

To create a family group, the group owner first needs to click the create family button, and a form will pop up, and display in the same page. The group owner then fills in the required information on this form and submit the form. Then the user interface will send information to the family controller. The family controller will save this info in the database, and then the user interface will display the new family group on the posting page.

# Editing Artifact Sequence Diagram

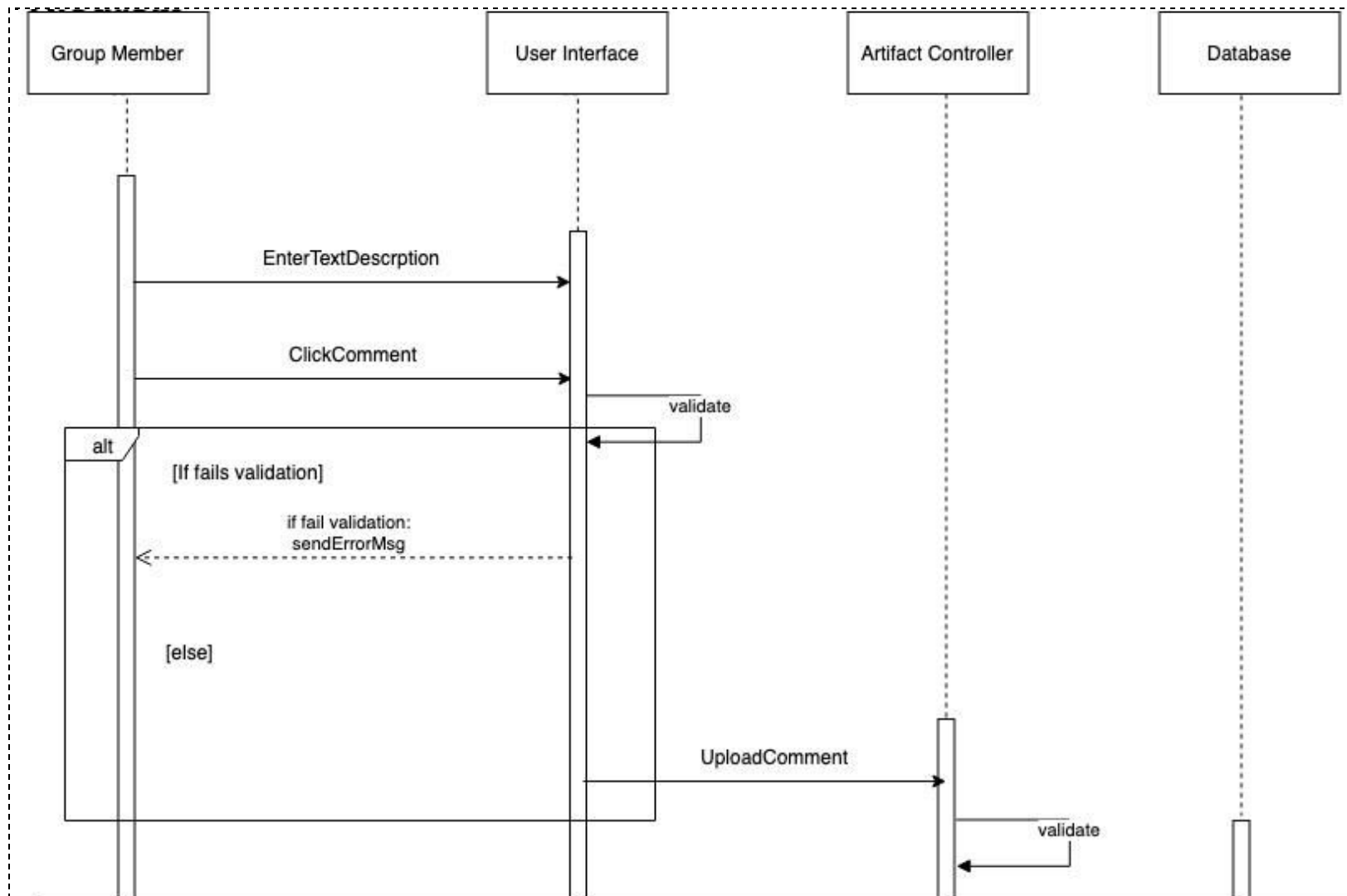


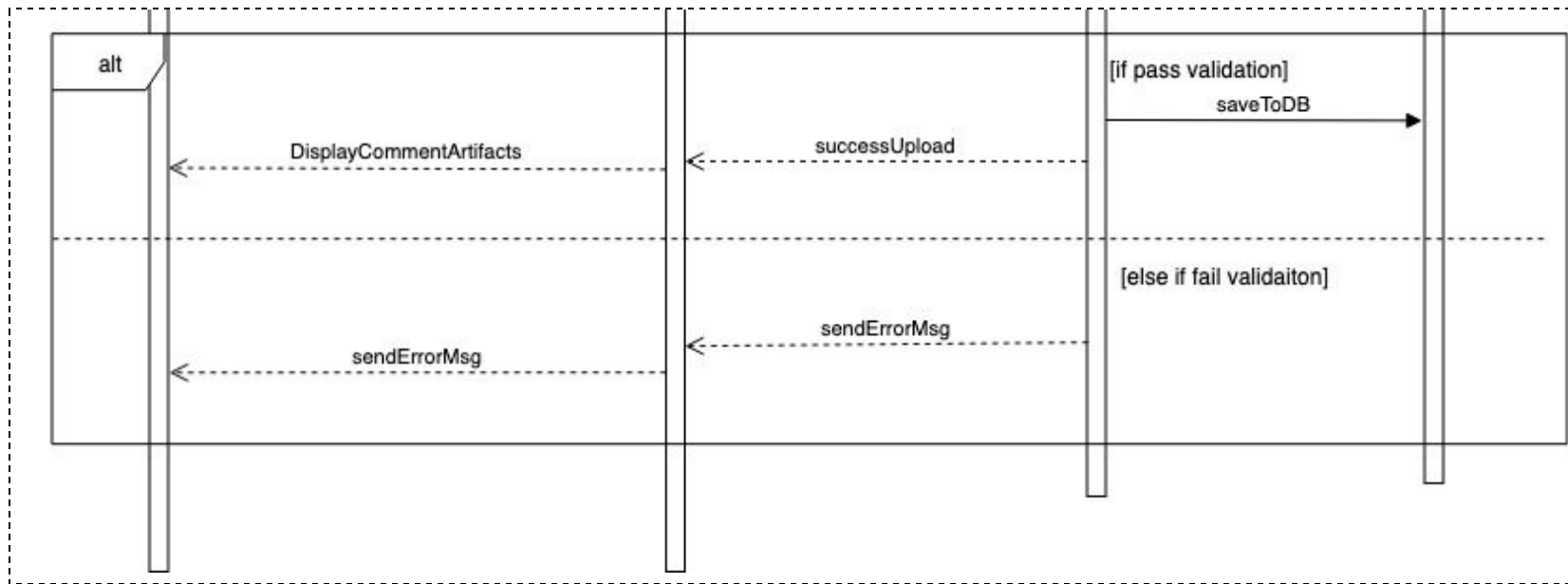


[Editing artifact sequence diagram in draw.io](#)

To edit artifacts, the group member first needs to enter description with clicking the edit button, then the user interface will send error message if the description is not the correct format. If the operation is successful, user interface updates the description and validates with artifact controller, then save to database. If pass validation in the artifact controller, display the new edited artifacts page for the user, otherwise send an error message.

## Commenting Artifact Sequence Diagram



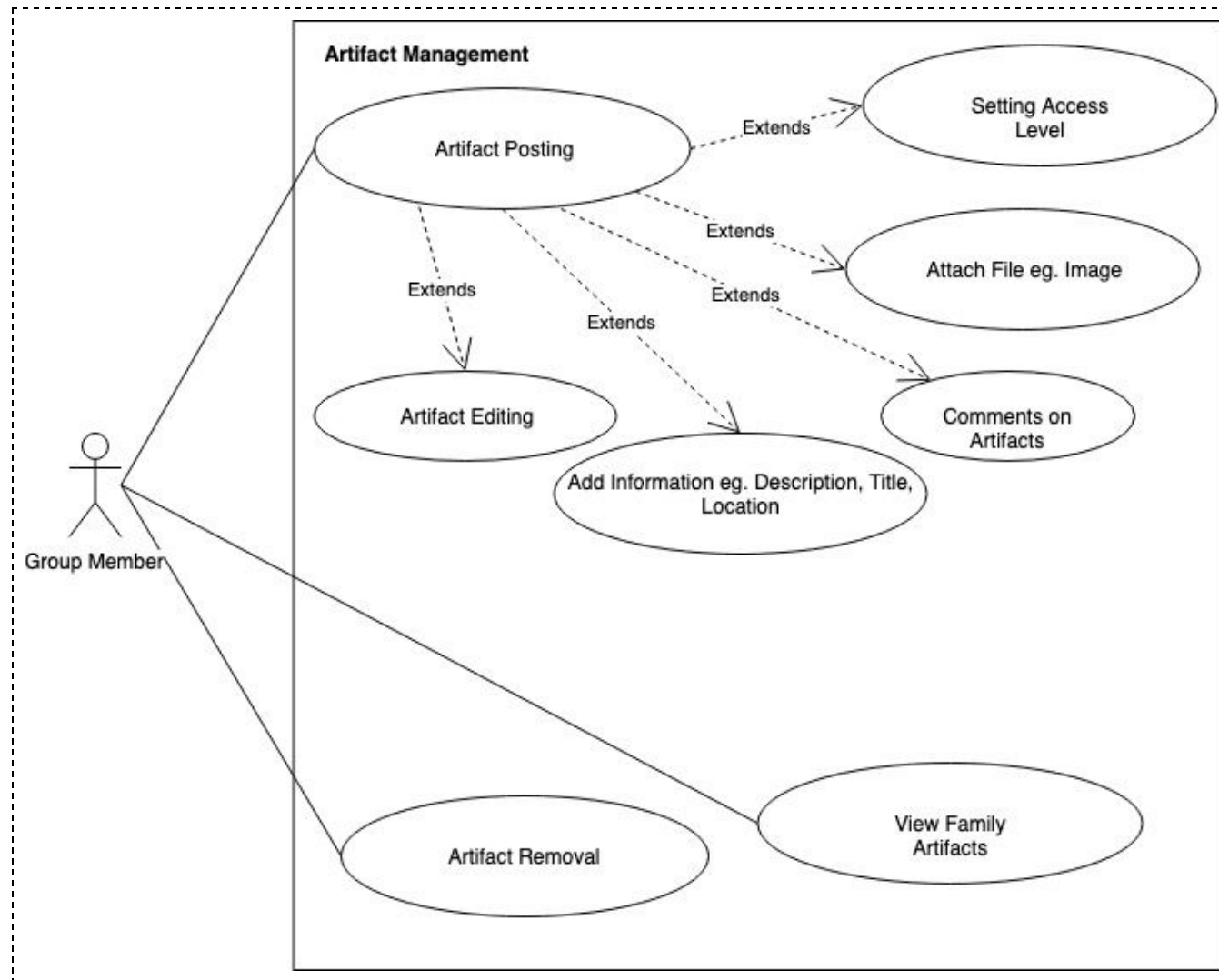


[Commenting artifact sequence diagram in draw.io](#)

To comment on the artifacts, group member first needs to enter description, clicking the comment button, then the user interface will validate with specific words limits, if it fails validation the error message will pop up, otherwise upload the text description to the artifact controller. Then the artifact controller will save the comments to database. If pass the validation, the controller will store information in the database, display the new comment artifacts page for the user. Otherwise will show an error message.

# Use Case Diagrams

## Artifact Management Use Case Diagram



[Artifact management UCD in draw.io](#)

## Use Case Scenario: Post Artifact

### Main Success Scenario

#### Steps

	Actor	Action Description
1	Group Member	- Starts a new post
2	Group Member	- Enters the information to create the artifact
3	System	- Sanitise and validates the information
4	System	- Notifies the user the posting is successful
5	System	- Artifact is added and shown on home page

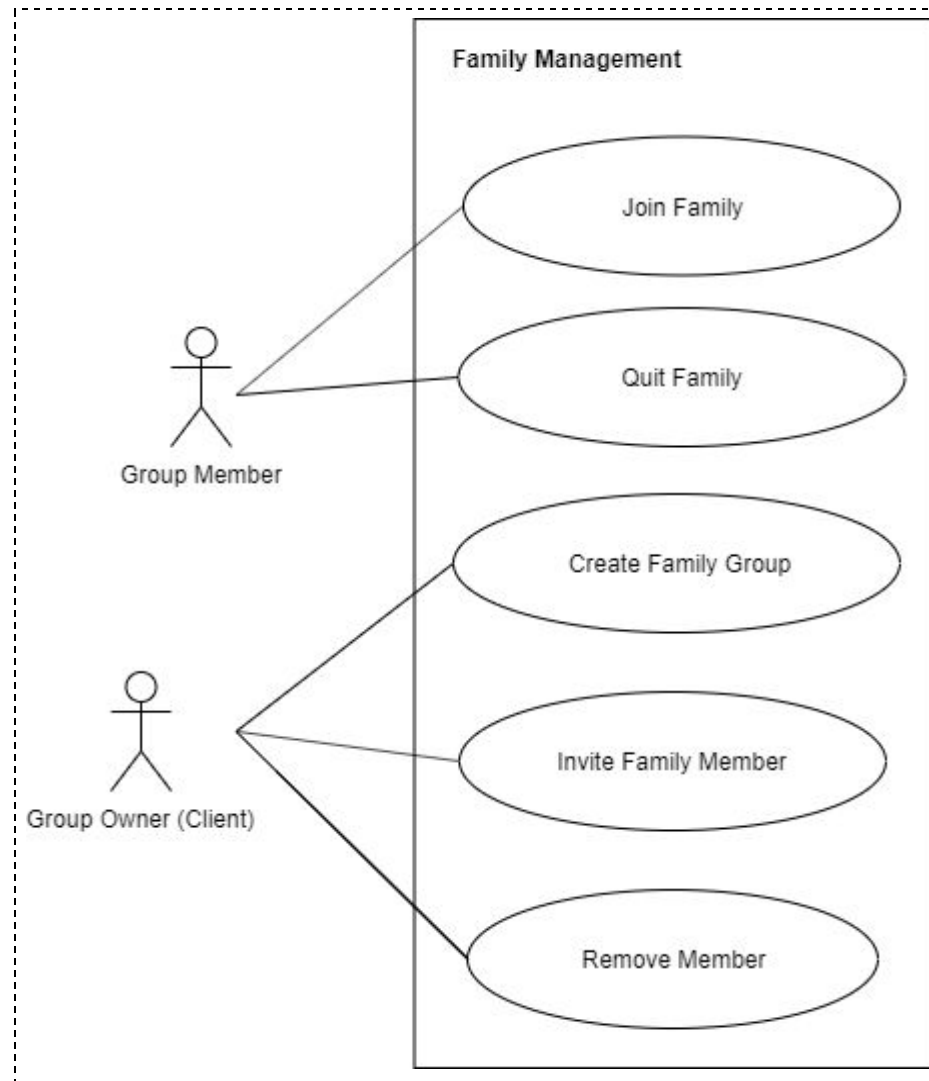
### Alternative Scenario

#### Steps

	Actor	Action Description
1	Group Member	- Starts a new post
2	Group Member	- Enters the information to create the artifact
3	System	- System sends an error message to the user as there is missing information
4	Group Member	- He/She fills in the missing information.
5	System	- Notifies the user the posting is successful
6	System	- Artifact is added and shown on home page



## Family Management Use Case Diagram



[Family management UCD in draw.io](#)

### Use Case Scenario: Invite Family Members

#### Main Success Scenario

##### Steps

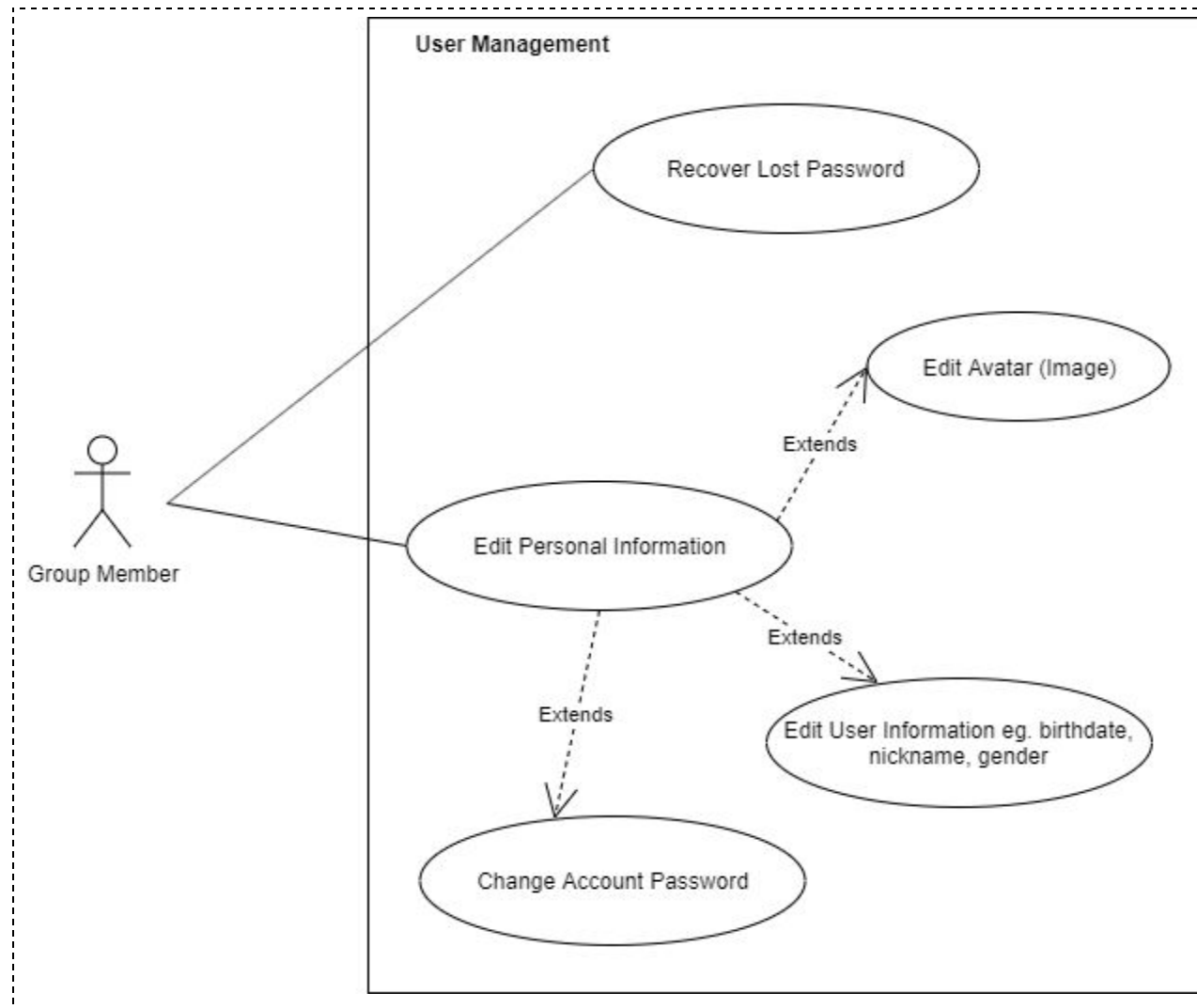
	Actor	Action Description
1	Group Owner	- Search users with their email address
2	Group Owner	- Send invitation to the user
3	System	- Shows invitation on user's notification box
4	Potential Group Member	- Accepts the invitation
5	System	- Shows a new group member on family page

#### Alternative Scenario

##### Steps

	Actor	Action Description
1	Group Owner	- Search users with their email address
2	Group Owner	- Send invitation to the wrong user
3	System	- Shows invitation on user's notification box
4	Wrong User	- Rejects the invitation

## User Management Use Case Diagram



[User management UCD in draw.io](https://draw.io)

### Use Case Scenario: Change Account Password

#### Main Success Scenario

##### Steps

	Actor	Action Description
1	Group Member	Click 'change profile' tab on profile page
2	Group Member	Enters correct old password and new password
3	System	Page refreshes and shows success message

#### Alternative Scenario

##### Steps

	Actor	Action Description
1	Group Member	Click 'change profile' tab on profile page
2	Group Member	Enters wrong old password
3	System	System shows error to group member
4	Group Member	Enters correct old password and new password
5	System	Page refreshes and shows success message

### Use Case Scenario: Edit Artifact

#### Main Success Scenario

##### Steps

	Actor	Action Description
1	Group Member	Click 'change personal information' tab on profile page
2	Group Member	Upload image for new avatar
3	System	Page refreshes and shows new avatar.

#### Alternative Scenario

##### Steps

	Actor	Action Description
1	Group Member	Click 'change personal information' tab on profile page
2	Group Member	Upload image for new avatar
3	System	Detects wrong file extension and shows error
4	Group Member	Reupload image with correct file format
5	System	Page refreshes and shows new avatar.