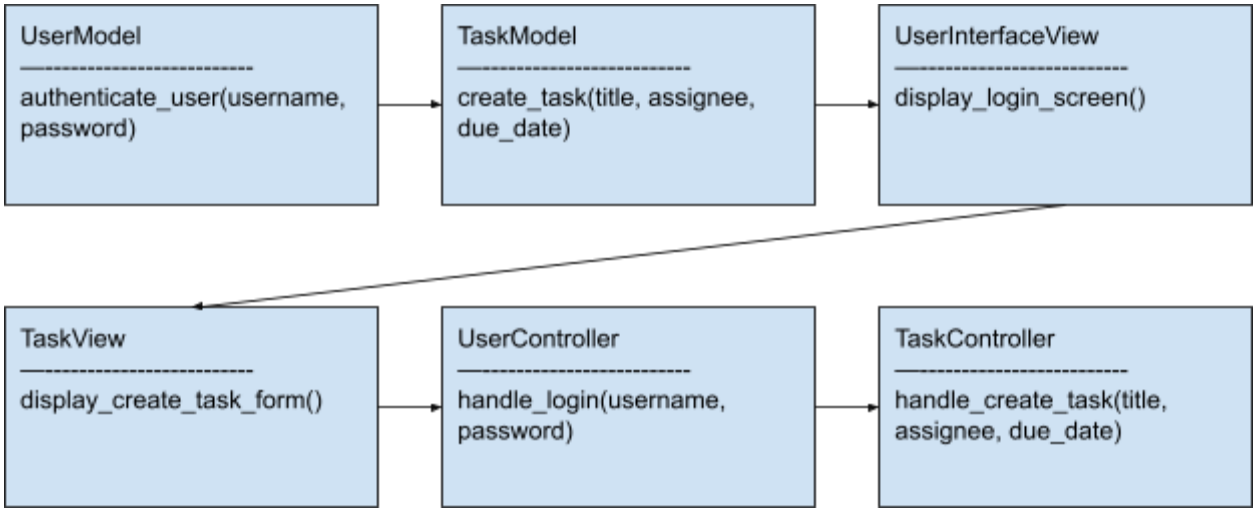
High level design: The Model-View-Controller Architecture is going to be used for this project. Most modern web applications use this model due to its focus on reusability and abstraction during the development process. Developers can work on different portions of the same section of an application at the same time due to abstractions like interfaces; the work can be split up into model, view, and controller. The disadvantages are maintainability and performance for very large projects but ours will never reach that scale.

Low level design: As stated in high level design, the Model-View-Controller architecture would be helpful for this project because it separates the applications into three main components: model, view, and controller. Each component has a different responsibility, which aligns well with our functionality requirements. In our project, our model will handle the data and logic of our application, so it will handle tasks like user authentication, task management, backups, etc. The view will be responsible for presenting the data to the user and receiving input. Our view will handle the user interface components and linking them to functionality. Lastly, our controller will act as an intermediate between the model and the view.

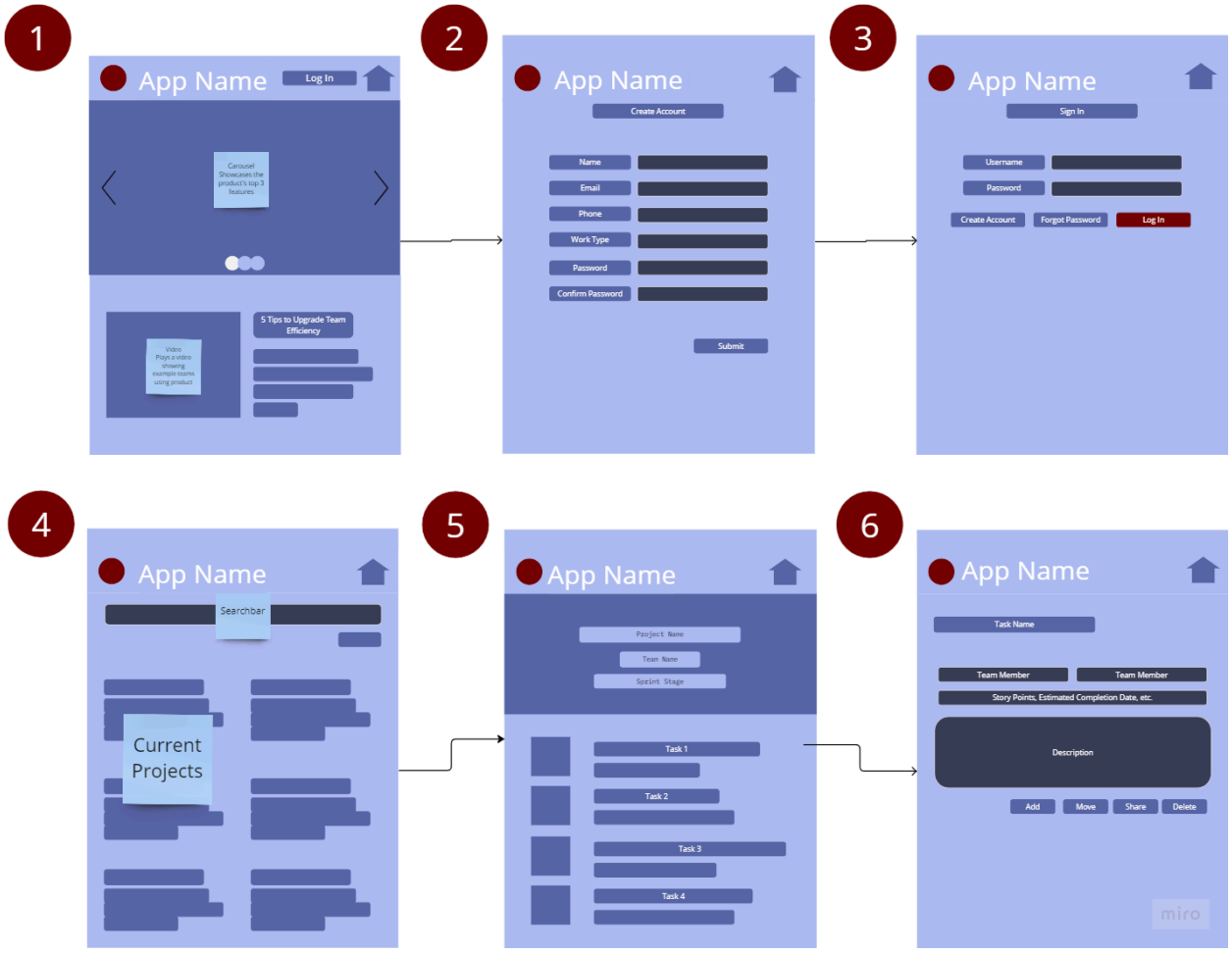
Pseudocode:

```
# Model
class UserModel:
        def authenticate(username, password)
class TaskModel:
        def create_task(title, assignee, due_date)

# View
class UserInterfaceView():
        def display_login_screen()

class TaskView:
        def display_create_task_form()

# Controller
class UserController:
        def handle_login(username, password):
                if UserModel.autheticate(username, password):
                        UserInterfaceView.display_dashboard()

class TaskController:
        def handle_create_task(title, assignee, due_date):
                TaskModel.create_task(title, assignee, due_date)
                TaskView.display_task_list()
```

UML Diagram:



Design Sketch:



The wireframe mockup above represents our project interface from a user perspective. It will allow users to create an account and log in so that they can keep their work private. The user

will begin in the home screen. They can create an account by going to the log in screen and clicking the “Create Account” button. Once they have entered their information and created their account, they will be redirected back to the login page to enter their account. We made sure that the log in page also allowed for users who forgot their password to recover their account. Once they have created an account, a dashboard as shown in the fourth screen will allow users to either search for specific projects or choose their most recently used projects. Each project has its own page with project information such as the team members involved and the sprint stage it is going through. In future wireframes, we will explore more in depth how to allow users to customize these pages easily. Finally, when the user clicks on a specific task, they will have access to more detailed information about the task itself, the people working on it, and the estimated completion time. Users can also share the task to other team members, move the task to a different sprint, or delete it is unnecessary.

Meeting 5 Notes:
Date: 4/5/2024
Topic: Worked on low/high level design, the progress report, and a sketch of the design
Members: Lucas, Mollie, Hannah, Shreya
Notes:

- Mollie: Low level design and progress report
    - Worked on description for low level design: pseudocode and uml
    - Aided with the progress report survey
    - Problems: Did not fully understand what a low level design was
    - Plan: Work on higher fidelity designs
- Hannah: Sketch of design and progress report
    - Worked on the sketch (wireframe) for the project with Shreya
    - Aided with the progress report survey
    - Problems: Not much experience with creating sketches
    - Plan: Work on higher fidelity designs
- Lucas: High level design description and progress report
    - Worked on description for high level design
    - Aided with the progress report survey
    - Problems: Lack of any artistic ability
    - Plan: Work on higher fidelity designs
- Shreya: Sketch of design and progress report
    - Worked on the sketch (wireframe) for the project with Hannah
    - Aided with the progress report survey
    - Problems: Not much experience with creating sketches
    - Plan: Work on higher fidelity designs