Use Case Name: Login to the system	ID: 1	Importance Level: High
Primary Actor: User		Use Case Type: Detail, Essential
Stakeholders and Interests User - wants to login to the system.		
Brief Description: The user needs to login before using the Gemini system.		
Trigger: The user wants to use the Gemini system. Type: external		

Relationships:-
 	
   Association:User
 	
   Include:-
 	
   Extend:-
 	
   Generalization:-		

Normal Flow of Events:
 	
1. The user enters the login page.
 	
2. The user has an account in the Gemini system.
 	
   If the user does not have an account.
 	
     The S-1 : create a new account subflow is performed.
 	
3. User input username.		

4. User input password.

   If User inputs wrong password

      The S-2 : forget password subflow is performed.

5.User enter to system

Subflows:

   The S-1 : create a new account

      1.User input username.

      2.User input username.

      3.User input email

   The S-2 : forget password

      1.User input username.

      2.User input email

      3.User verify account by email

      4.User set new password

Alternate/Exceptional Flow:

Use Case Name: Submit a Science Plan	ID: 2	Importance Level: High
Primary Actor: Astronomer		Use Case Type: Detail, Essential

Stakeholders and Interests

Astronomer - wants to submit their science plan

Brief Description: This use case describes astronomer who wants to submit their science plan

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Trigger: The astronomer wants to submit a science plan

Type: External

Relationships:

   Association: Astronomer

   Include:

   Extend:

   Generalization:

Normal Flow of Events:

1. Astronomers create a science plan.
2. Astronomers test a science plan via the virtual telescope and interactive observing mode.
3. Astronomers submit science plans to the system.

Subflows:

Alternate/Exceptional Flow: science plan has not been tested and the interactive observation

Use Case Name: Create an observing program	ID: 3	Importance Level: high
Primary Actor: Science Observer		Use Case Type: Detail, Essential
Stakeholders and Interests Astronomer Telescope Operator		
Brief Description:This use case describes how a science observer transforms a science plan to an observing program		
Trigger:Science Observer received A created science plan from Astronomer Type:		

Relationships:
 	
   Association: Science Observer
 	
   Include:
 	
   Extend:
 	
   Generalization:		

Normal Flow of Events: 1. The science observer gets a created science plan from system 2. Validate a science plan 3. Transform a science plan to an observing program 4. Submit an observing program to the system		

Subflows:
Alternate/Exceptional Flow:

Use Case Name: Validate an Observing Program	ID: 4	Importance Level: HIGH
Primary Actor: Telescope Operator		Use Case Type: Detail, Essential

Stakeholders and Interests:

Telescope Operator: want to validate an observing program

Brief Description: This use case describes how a telescope operator validates an observing program

Trigger: Telescope Operator want to validate an observing program

Type: External

Relationships:

    Association: Telescope Operator

    Include:

    Extend:

    Generalization:

Normal Flow of Events:

1. Telescope Operator get an observing program for the system
2. Telescope Operator validate an observing program
3. Submit an observing program to the system

Subflows:

Alternate/Exceptional Flow:

Use Case Name: Install new configurations to the system	ID: 5	Importance Level:
Primary Actor: Supporter		Use Case Type: Detail, Essential

Stakeholders and Interests:

Supporter–wants to install new configurations to the system

Brief Description: This use case describes the process of installation and configuration with support.

Trigger: new or updated configurations.

Type: Internal

Relationships:

   Association: Supporter

   Include:

   Extend:

   Generalization:

Normal Flow of Events:

1. Proposal to special equipment to Gemini
2. Support validated installation and configuration
3. Install new configurations to the system

Subflows:

Alternate/Exceptional Flow:

1. The installation is unable to be installed; the installation is rejected