User Stories	Wants
US1	As a new user I want to open an account with the Planetarium so I can save my celestial findings
US2	As a user I want to securely access my account so I can interact with the Planetarium in a secure environment
US3	As a user I want to see my planets and moons added to the Planetarium so I can track my findings
US4	As a user I want to add new planets and moons to the Planetarium so I can update my findings
US5	As a user I want to remove planets and moons from the Planetarium so I can correct my findings

Security Requirement ID	Security Requirement	User Requirement ID	User Requirement	Planet Requirement ID	Planet Requirement	Moon Requirement ID	Moon Requirement
SR1	Passwords should never be visible in plain text	UR1	Users should have unique usernames	PR1	Planet names should be between 1-30 characters	MR1	Moon names should be between 1-30 characters
SR2	Users should only be able to interact with resources they have added to the Planetarium	UR2	Usernames and passwords should be between 5-30 characters	PR2	Planet names should support lower case, upper case, numeric characters, white space, underscores, and dashes	MR2	Moon names should support lower case, upper case, numeric characters, white space, underscores, and dashes
SR3	Only logged in Users should be able to access the Planetarium home page	UR3	Usernames and passwords should start with a letter	PR3	Planets should have unique names	MR3	Moons should have unique names
		UR4	Usernames should support lower case, upper case, numeric characters, underscores, and dashes	PR4	Planets should be "owned" by the user that added it to the Planetarium	MR4	Moons should be "owned" by the Planet the User adding the moon associated it with
		UR5	Passwords should contain a lower case, upper case, and numeric character	PR5	Planets should allow adding an associated image, but an image should not be required for the data to be added to the database	MR5	Moons should be deleted if their "owner" planet is deleted from the database
		UR6	Passwords should support underscores and dashes	PR6	JPEG & PNG should be supported	MR6	Moons should allow adding an associated image, but an image should not be required for the data to be added to the database
						MR7	JPEG & PNG should be supported

User Story ID	Requirement ID
US1	SR1, SR3, UR1-6
US2	SR1, SR3, UR1-6
US3	SR2, SR3
US4	SR2, PR1-6, MR1-4, MR6-7
US5	SR2, PR4, MR4-5

Scenario 1

Happy Path	Sad Path
Given the user is on the login page	Given the user is on the login page
When the user accesses the register link	When the user accesses the register link
When the user provides a valid username	And the user provides invalid credentials
And the user provides a valid password	Then the user should be shown an alert with an error message
Then an alert should appear saying "Account created successfully"	And the user should remain on the register page
And the user should be redirected to the login page	

Scenario 2

Happy Path	Sad Path
Given the user is on the login page	Given the user is on the login page
And the user has a registered account	And the user has a registered account
When the user provides valid login credentials	Or the user does not possess an account
Then the user should be logged in	And the user provides invalid login credentials
And the user should be redirected to the home page with a greeting message present	Then the user should be shown an alert with an error message
	And the user should remain on the login page

Scenario 3

Happy Path	Sad Path
Given the user is on the home page	Given the user is on the home page
And the user has previously added valid planet or moon data	And the user has no previously submitted planet or moon data
Then the user should see the previously added data present on the home page	Or the user has submitted invalid data
	Then the user should not see any planet or moon data on the home page

Scenario 4

Happy Path	Sad Path
Given the user is on the home page	Given the user is on the home page
When the user enters valid planet or moon data	When the user enters invalid planet or moon data
And the user presses the submit button	And the user presses the submit button
Then the table should refresh	Then the user should be shown an alert with an error message
And the user should remain on the home page	And the user should remain on the home page
And the newly submitted info should now be present in the table	And the invalid data should not appear on the home page

Scenario 5

Happy Path	Sad Path
Given the user is on the home page	Given the user is on the home page
When the user enters valid planet or moon data	When the user enters invalid planet or moon data
And the user presses the delete button	And the user presses the delete button
Then the table should refresh	Then the user should be shown an alert with an error message
And the user should remain on the home page	And the user should remain on the home page
And the aforementioned data should be removed from the table	And no data should be removed from the table

Valid/Invalid Username & Password Test Data

Valid Username Test Data	cont.	Invalid Username Test Data	cont	Valid Password Test Data	contid	Invalid Password Test Data	confd.
Unique Username & Starts With Letter (UR1, UR3)		Non-Unique Username (UR1)		5 Characters With Required Characters (UR2, UR3, UR5)		4 Characters (UR2)	31 Characters (UR2)
Diana		Batman		Thisshouldbethirtycharacterss3		T0dd	Thisoverthirtycharactersssssss3
5 Characters & Starts With Letter (UR2)	30 Characters & Starts With Letter (UR2)	4 Characters (UR2)	31 Characters (UR2)	Supports Dashes & Underscores (UR6)		Missing Required Characters (UR5)	
Jason	thisshouldbethirtycharacterss	Todd	thisoverthirtycharactersssssss	Diana_4-1		diana	
Supports Lower & Upper Case, Numbers, Underscores & Dashes (UR4)		Diana!%?				Diana	
Diana_4-1		Username Does Not Start With Letter (UR3)				d1ana	
		Oliver				D1ANA	
						D1ana?	
						Begins With Non-Letter (UR3)	
						Oliver	

Login Test Data

Valid Username Test Data	cont.	Invalid Login (Username) Test Data	Invalid Login (Password) Test Data	Valid Password Test Data	contid
Unique Username & Starts With Letter (UR1, UR3)		Misspelled Username	Correct Password	5 Characters With Required Characters (UR2, UR3, UR5)	30 Characters With Required Characters (UR2, UR3, UR5)
Diana		Batmann	Iamtheright1939	D1ana	Thisshouldbethirtycharacterss3
5 Characters & Starts With Letter (UR2)	30 Characters & Starts With Letter (UR2)	Correct Username	Misspelled Password	Supports Dashes & Underscores (UR6)	
Jason	thisshouldbethirtycharacterss	Batman	Iamtheright1930	Diana_4-1	
Supports Lower & Upper Case, Numbers, Underscores & Dashes (UR4)					
Diana_4-1					

Planet & Moon Test Data

Valid Planet Test Data	cont.	Invalid Planet Test Data	cont	Valid Moon Test Data	contid	Invalid Moon Test Data	confd.
Unique Planet Name (PR3)		Non-Unique Planet (PR3)		Unique Moon Name (MR3)		Non-Unique Moon (MR3)	
Krypton		Earth		Titan		Titan	
1 Character Planet (PR1)	30 Characters Planet (PR1)	Null Planet Name (PR1)	31 Characters Planet (PR1)	1 Character Moon (MR1)	30 Characters Moon (MR1)	Null Character Moon (MR1)	31 Characters Moon (MR1)
X	thisshouldbethirtycharacterss		thisoverthirtycharactersssssss	Z	thisshouldbethirtycharacterss		Thisoverthirtycharactersssssss3
Supports Lower & Upper Case, Numbers, White Space, Underscores & Dashes (PR2)		Includes Unsupported Characters (PR2)		Supports Lower & Upper Case, Numbers, White Space, Underscores & Dashes (MR2)		Includes Unsupported Characters (MR2)	
Krypton Prime_1-2		Krypton$$!!!		Metro PSI_i-s		Metro7 PDi-s	

Planet/Moon Owner & Deletion Test Data

Valid Planet Owner Test Data	Invalid Planet Owner Test Data	Valid Moon Owner Test Data	Invalid Moon Owner Test Data	Valid Planet Deletion Test Data	Invalid Planet Deletion Test Data
Planet "Owned" By Specific User (PR4)	Planet "Owned" By Different User (PR4)	Moon "Owned" By Specific User (MR4)	Moon "Owned" By Different User (MR4)	Correct Moon Deleted Upon Planet Deletion (MR5)	Correct Moon Remains Upon Planet Deletion (MR5)
User: Batman	User: Batman	User: Batman	User: Batman	Planet Deleted: Earth	Planet Deleted: Earth
Planet: Earth	Planet: Mars	Moon: Luna	Moon: Titan	Moon Deleted: Luna	Moon Remaining: Titan

(Right side) Owner & Image Test Data

Valid Planet Owner Test Data	Invalid Planet Owner Test Data	Valid Planet Image Test Data	Invalid Planet Image Test Data	Valid Moon Owner Test Data	Invalid Moon Owner Test Data	Valid Moon Image Test Data	Invalid Moon Image Test Data
Planet "Owned" By Specific User (PR4)	Planet "Owned" By Different User (PR4)	JPEG/PNG Planet Image (PR5, PR6)	Unsupported Image File (PR5, PR6)	Moon "Owned" By Specific User (MR4)	Moon "Owned" By Different User (MR4)	JPEG/PNG Moon Image (MR6, MR7)	Unsupported Image File (MR6, MR7)
User: Batman	User: Batman	Krypton.png	Krypton.pdf	User: Batman	User: Batman	Tamaran.jpeg	Tamaran.pdf
Planet: Earth	Planet: Mars			Moon: Luna	Moon: Titan		

(Far right) Username & Password Test Data

Valid Username Test Data	Invalid Username Test Data		Valid Password Test Data	Invalid Password Test Data
Unique Username & Starts With Letter (UR1, UR3)	Non-Unique Username (UR1)		5 Characters W/ Required Characters (UR2, UR3, UR5)	4 Characters (UR2) 31 Characters (UR2)
Diana	Batman		D1ana Thisshouldbethir T0dd	Thisoverthirtycharactersssssss3
5 Characters & Starts With Letter (l)	30 Characters & Starts With Letter	4 Characters (UR2)	31 Characters (UR2)	Missing Required Characters (UR5)
Jason	thisshouldbethirtycharacterss	Todd	thisoverthirtycharactersssssss	diana
Supports Lower & Upper Case, Numbers, Underscores & Dashes (UR	Includes Unsupported Characters (UR4)			Diana
Diana_4-1	Diana!%?			d1ana
	Username Does Not Start With Letter (UR3)			D1ANA
	Oliver			Unsupported Characters (UR6)
				D1ana?
				Begins With Non-Letter (UR3)
				Oliver