



ROSE-HULMAN INSTITUTE OF TECHNOLOGY

University of Wisconsin–Madison | Department of Computer Sciences

Human-Computer Interaction Laboratory



MILESTONE 4

Trey Cahill Katie Greenwald Samad Jawaid Kevin Ridsen

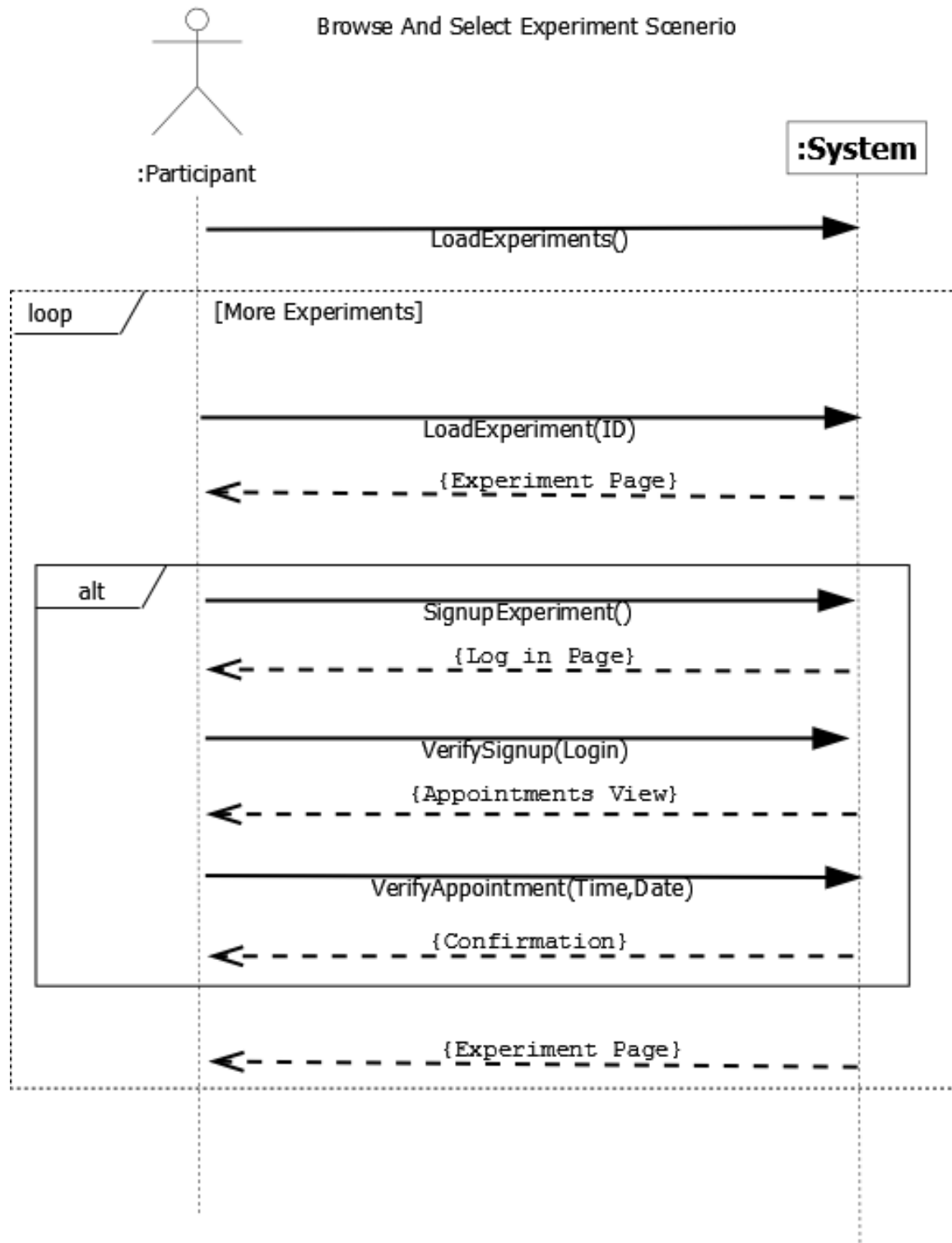
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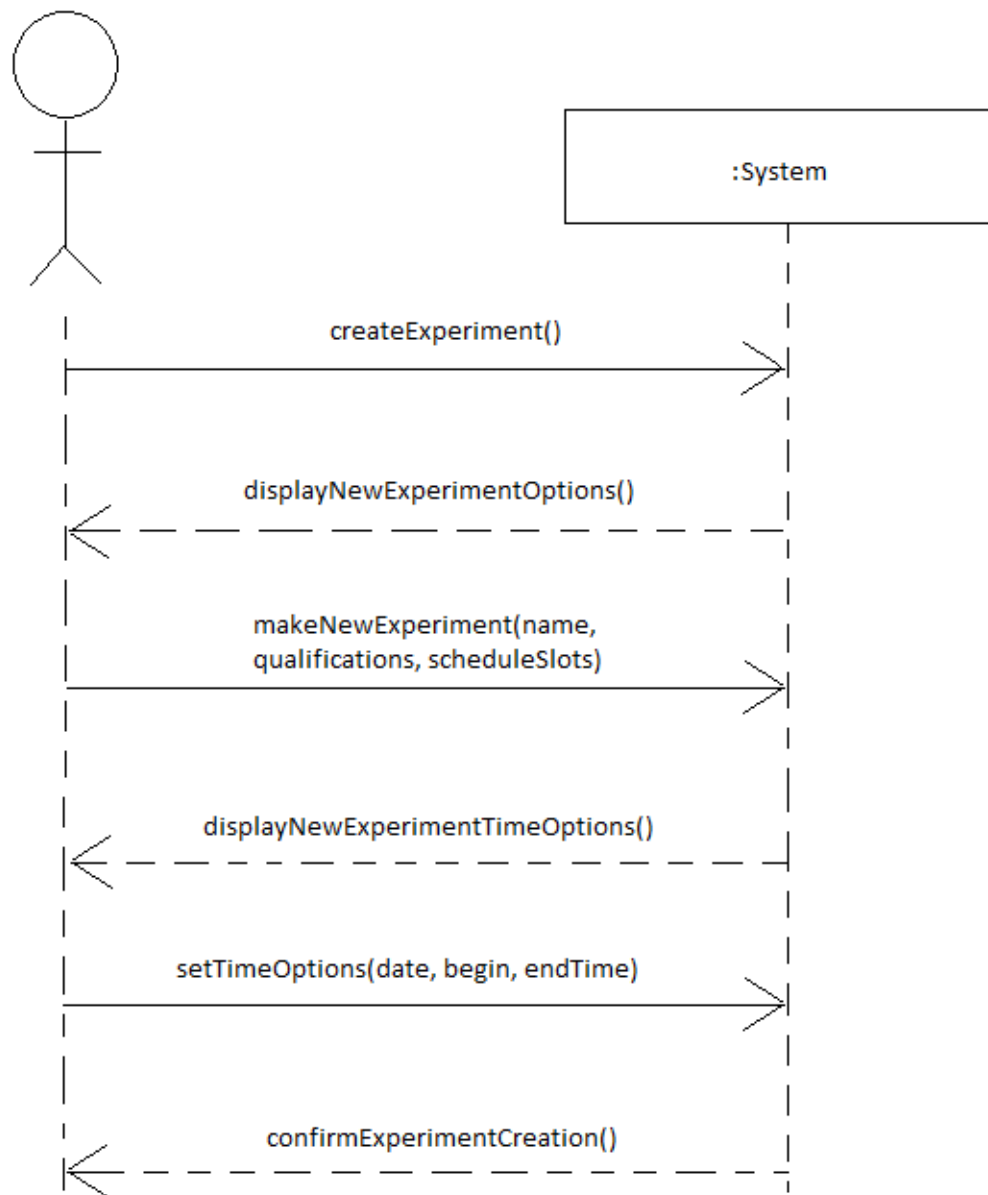
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1 System Sequence Diagrams

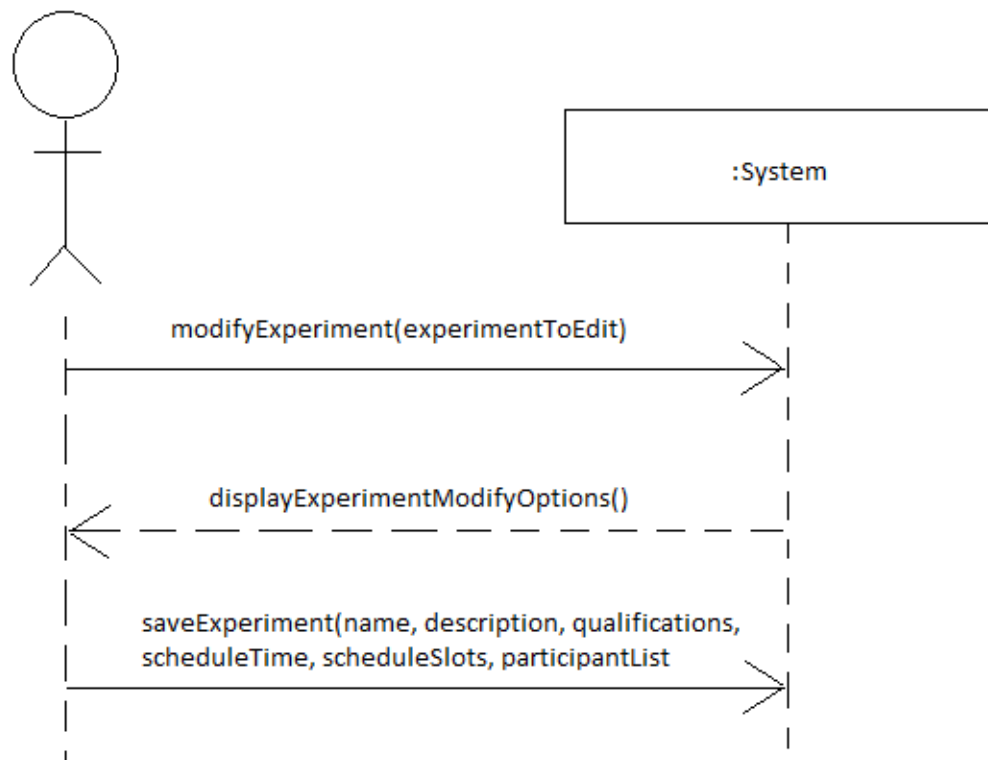
1.1 Browse and Select Experiment



1.2 Create Experiment



1.3 Modify Experiment



2 Operations Contracts

This section provides operation contracts for vital operations.

2.1 CreateExperiment

Operation:	CreateExperiment()
Cross References:	Uses Cases: Add Experiment
Preconditions	User is an Administrator and/or a Researcher and has authenticated
Postconditions:	Experiment object will have been created, or an error message will have been displayed

2.2 ModifyExperiment

Operation:	ModifyExperiment(ID)
Cross References:	Uses Cases: Modify Experiment
Preconditions	User is an Administrator and/or a Researcher and has authenticated
Postconditions:	The experiment object will have its fields modified, will have been deleted, or an error message will have been displayed

2.3 LoadExperiments

Operation:	LoadExperiments()
Cross References:	Uses Cases: Select Experiment
Preconditions	The participant has loaded the web page.
Postconditions:	Experiments collection was created (instance creation)

2.4 LoadExperiment

Operation:	LoadExperiment(ID)
Cross References:	Uses Cases: Select Experiment
Preconditions	The participant has clicked on an experiment.
Postconditions:	Experiment was created (instance creation)
	Experiment attributes were loaded into the web page

2.5 Sign Up Experiment

Operation:	SignupExperiment()
Cross References:	Uses Cases: Sign up for Experiment
Preconditions	The participant has clicked on an experiment to sign up for
Postconditions:	LogIn was created (instance creation)
	LogIn.logged became loggedIn (attribute modification)

2.6 Verify Sign up

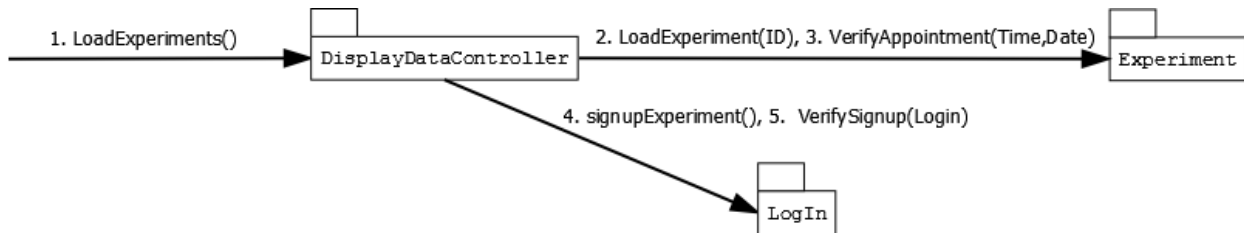
Operation:	VerifySignup(Login)
Cross References:	Uses Cases: Sign up for Experiment
Preconditions	The participant has logged into or created an account
Postconditions:	this.hasConflict is set to false (attribute modification)

2.7 Verify Appointment

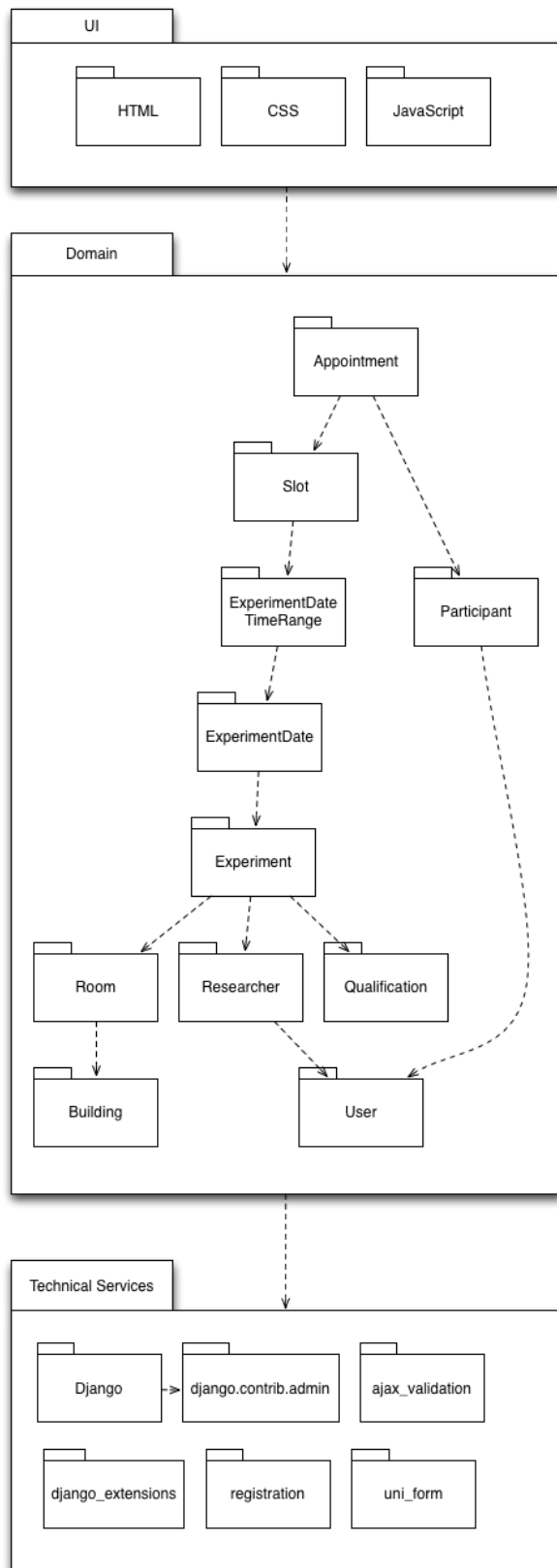
Operation:	VerifyAppointment(Time,Date)
Cross References:	Uses Cases: Sign up for Experiment
Preconditions	The participant has selected a time and date slot.
Postconditions:	experiment.slots has been modified (attribute modification)
	Database is updated

3 Interaction Diagrams

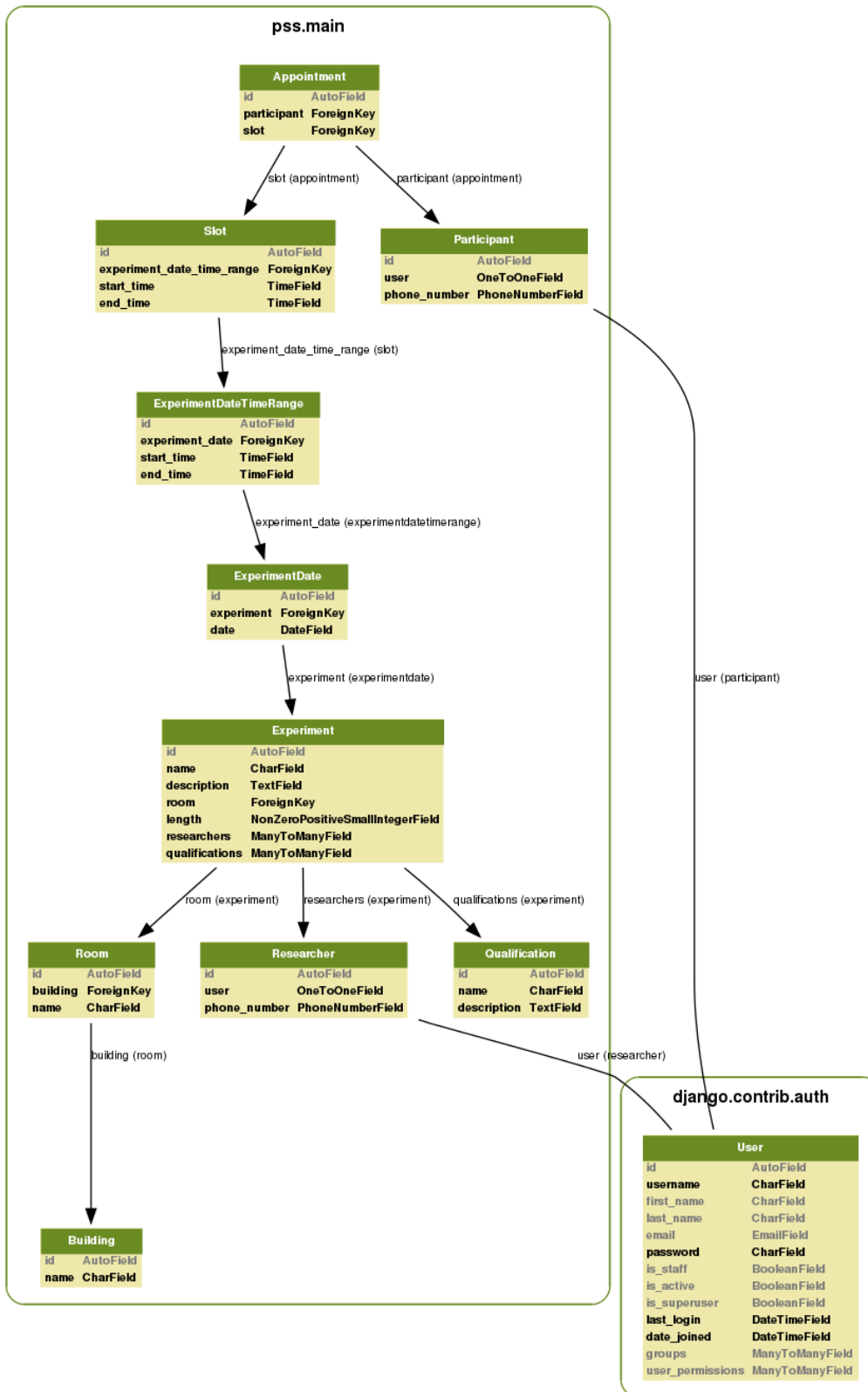
3.1 Sign Up For Experiment



4 Package Diagram



5 Class Diagram



6 GRASP Principles

6.1 Creator

6.2 Info Expert

6.3 Controller

6.4 High Cohesion

6.5 Low Coupling

6.6 Pure Fabrication

6.7 Indirection

6.8 Polymorphism

6.9 Protected Variation

7 References

8 Appendix