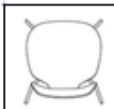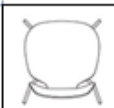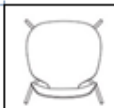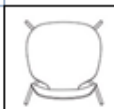# Where Would You Sit?
Software Requirements

Kelly Galuska, Brandon Laird, David Vaughn, & Daniel Klein

Problem Definition

Dr. Jason Scofield requires an application that will:

- allow researchers to configure experiment, including virtual room and survey questions
- allow experiment subjects to take survey and select seat in virtual room
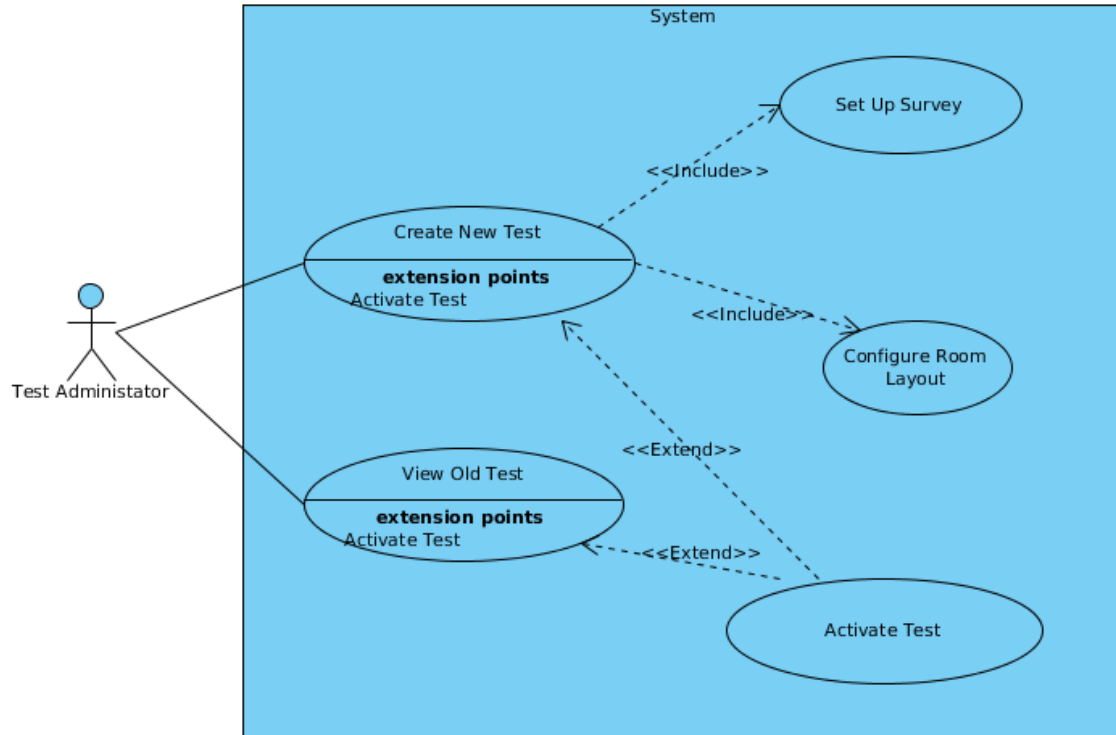
FRONT

BACK
ENTRANCE

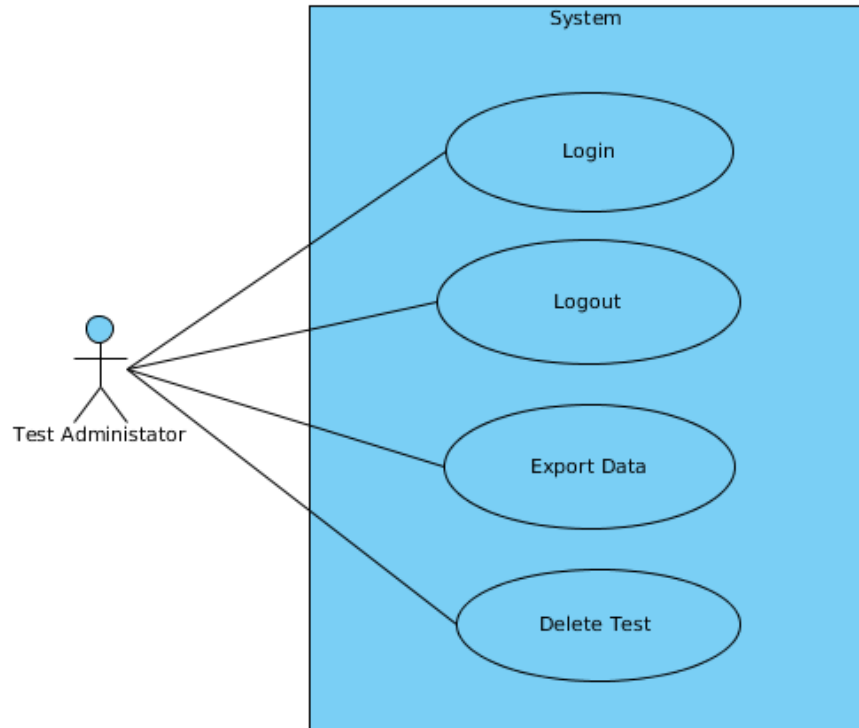# Scope of System

The system to be built in this project will comprise of a mobile app and web application that perform identical functionality, along with a way to download data generated by experimental sessions for analysis.

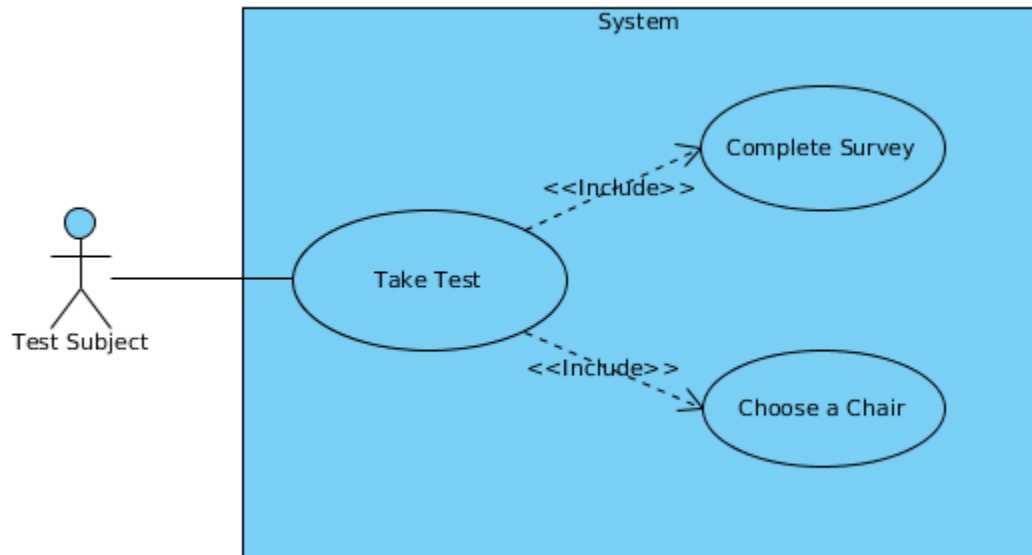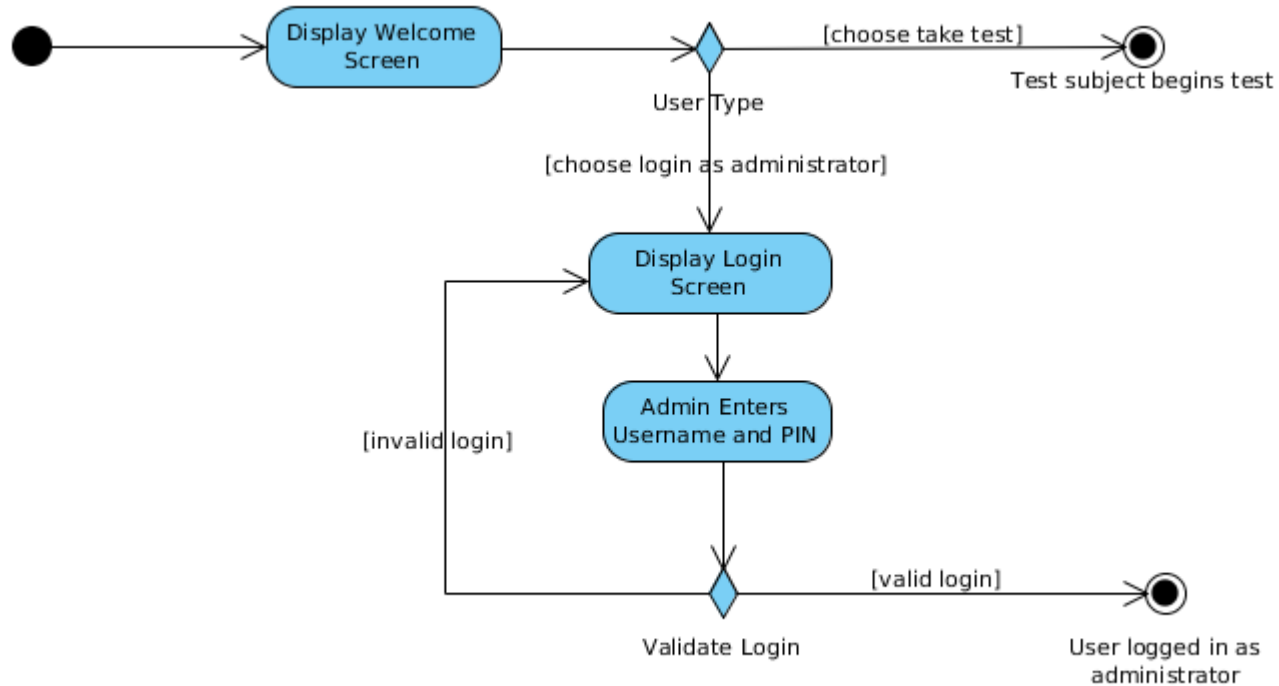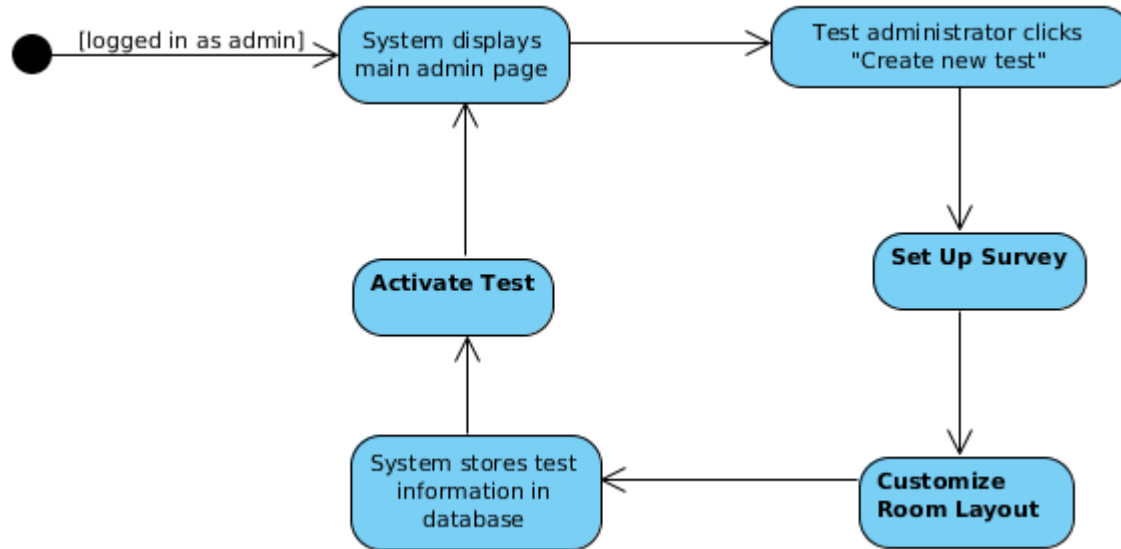# Use Cases

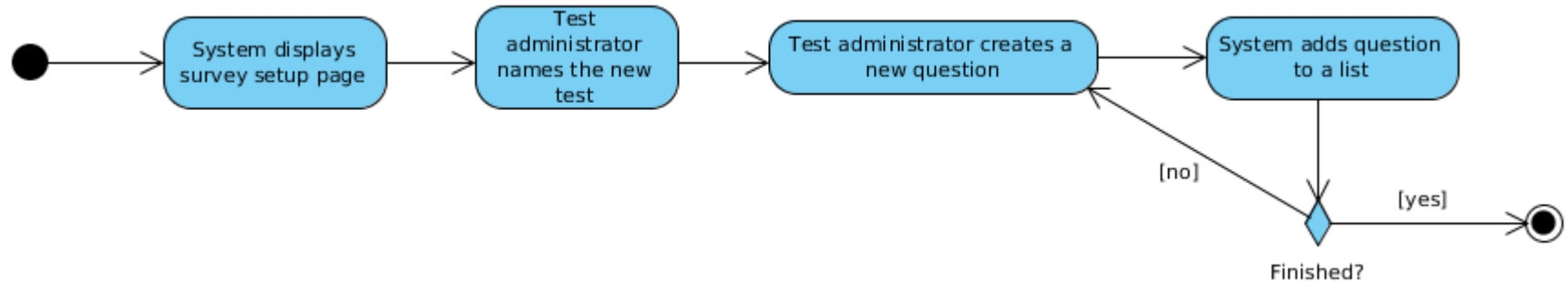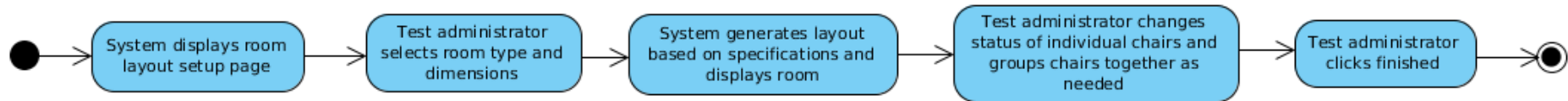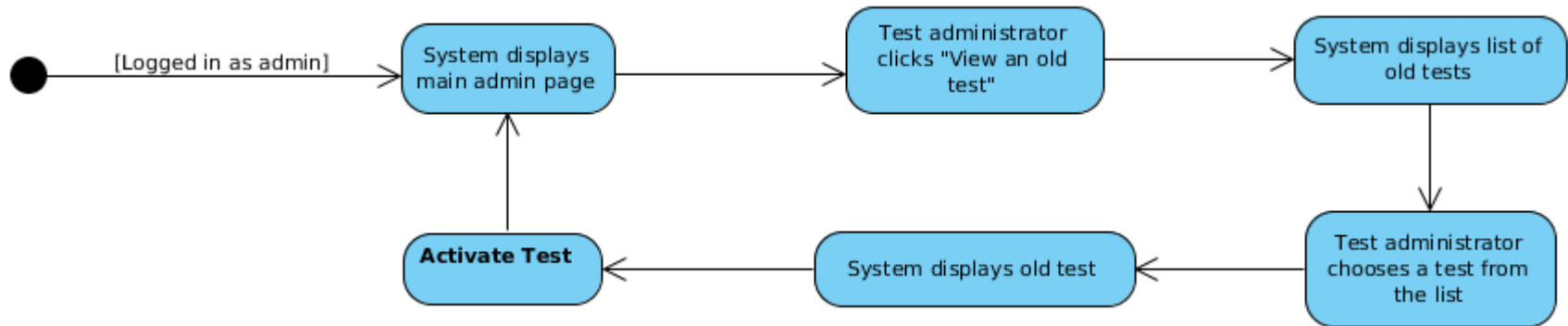# Use Cases
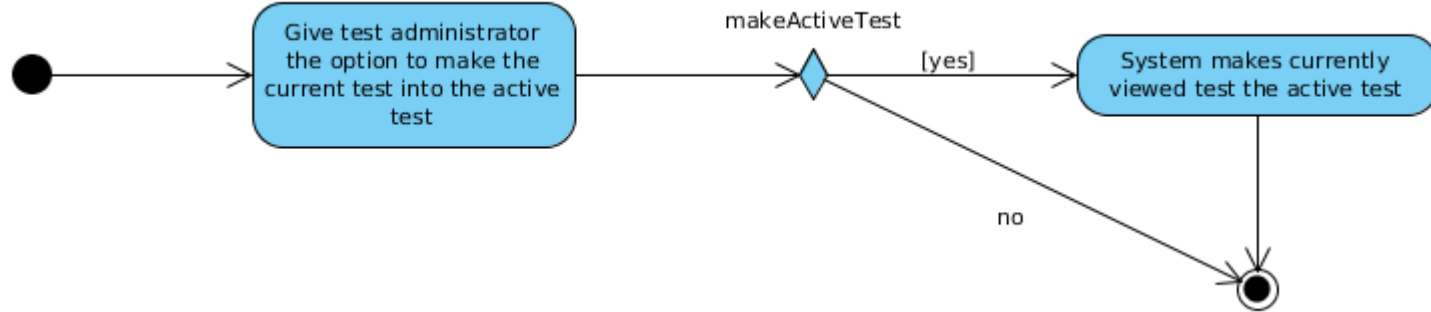
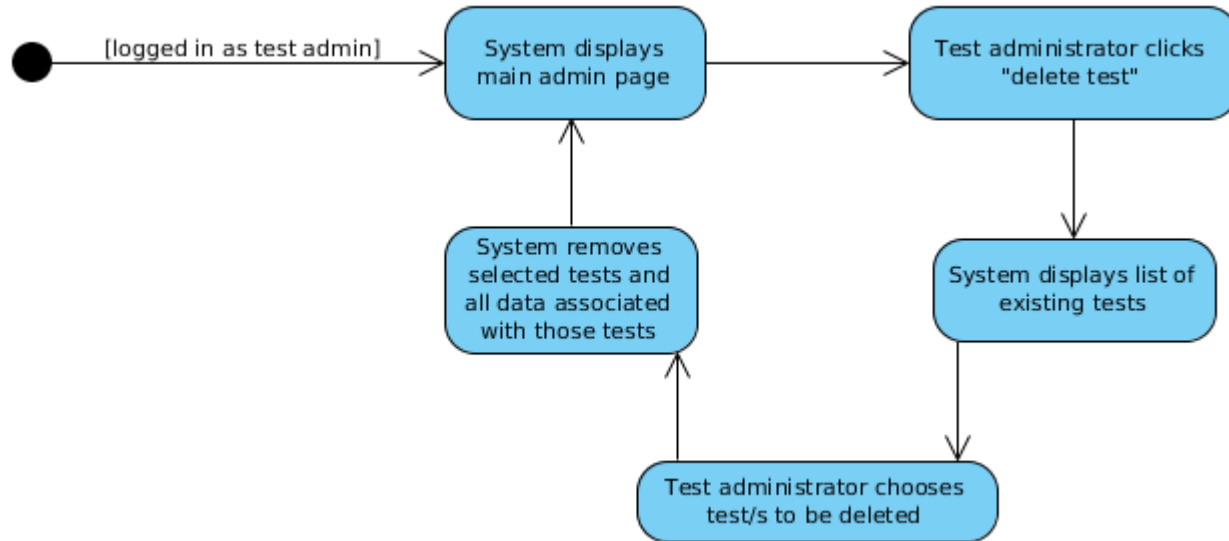# Use Cases

Login

Create New Test
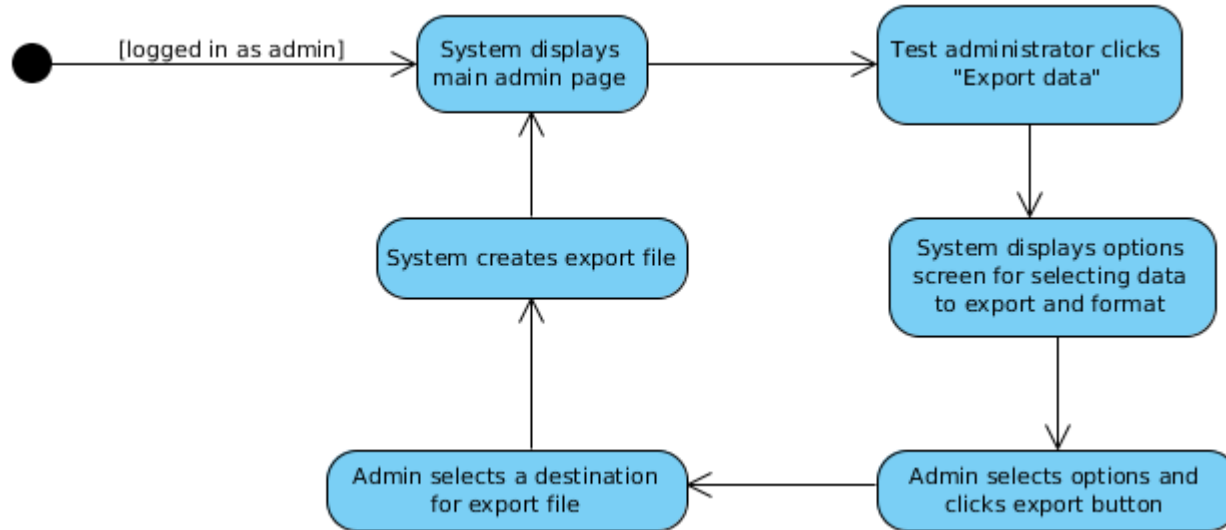
Set Up Survey
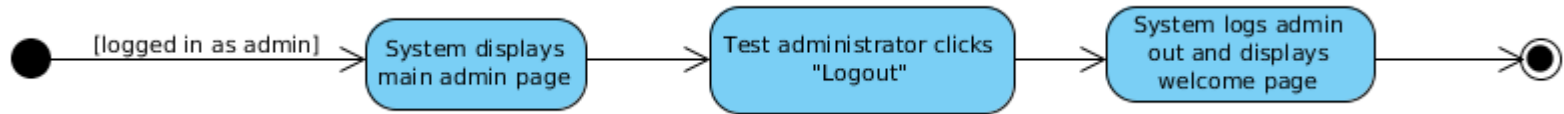
Configure Room Layout

View Old Test

Activate Test

Delete Test

Export Data

Logout

[logged in as admin] → System displays main admin page → Test administrator clicks "Logout" → System logs admin out and displays welcome page

Take Test

Class Diagram

WelcomeScreen
+chooseAdmin() : void
+chooseTakeTest() : void

LoginScreen
+validateLogin() : boolean

LoginManager
-database : String
-collection : String
+addLogin() : void
+testLogin() : boolean
+deleteLogin() : void

ViewTestScreen
+makeActiveTest() : void
+leave() : void

AdministratorMainScreen
+createTest() : void
+viewTest() : void
+deleteTest() : void
+exportData() : void
+logout() : void

ExportDataScreen
+chooseFormat() : void
+export() : void

Exporter
+getTests() : List
+getResults() : List
+print() : void

TakeSurveyScreen
+submit() : void

CreateSurveyScreen
+createNewQuestion() : void
+tagResponse() : void
+done() : void

TestManager
-database : String
-collection : String
+addTest() : void
+retrieveTest() : Test
+deleteTest() : void

Test
-surveyQuestions : List
-roomLayout : List
-tags : List

ChooseChairScreen
+submit() : void

CreateRoomScreen
+toggleChair() : String
+chooseDimensions() : void
+chooseRoomType() : void
+tagChair() : void

ResultsManager
-database : String
-collection : String
+addResults() : void
+retrieveResults() : Results
+deleteResults() : void

ThankYouScreen
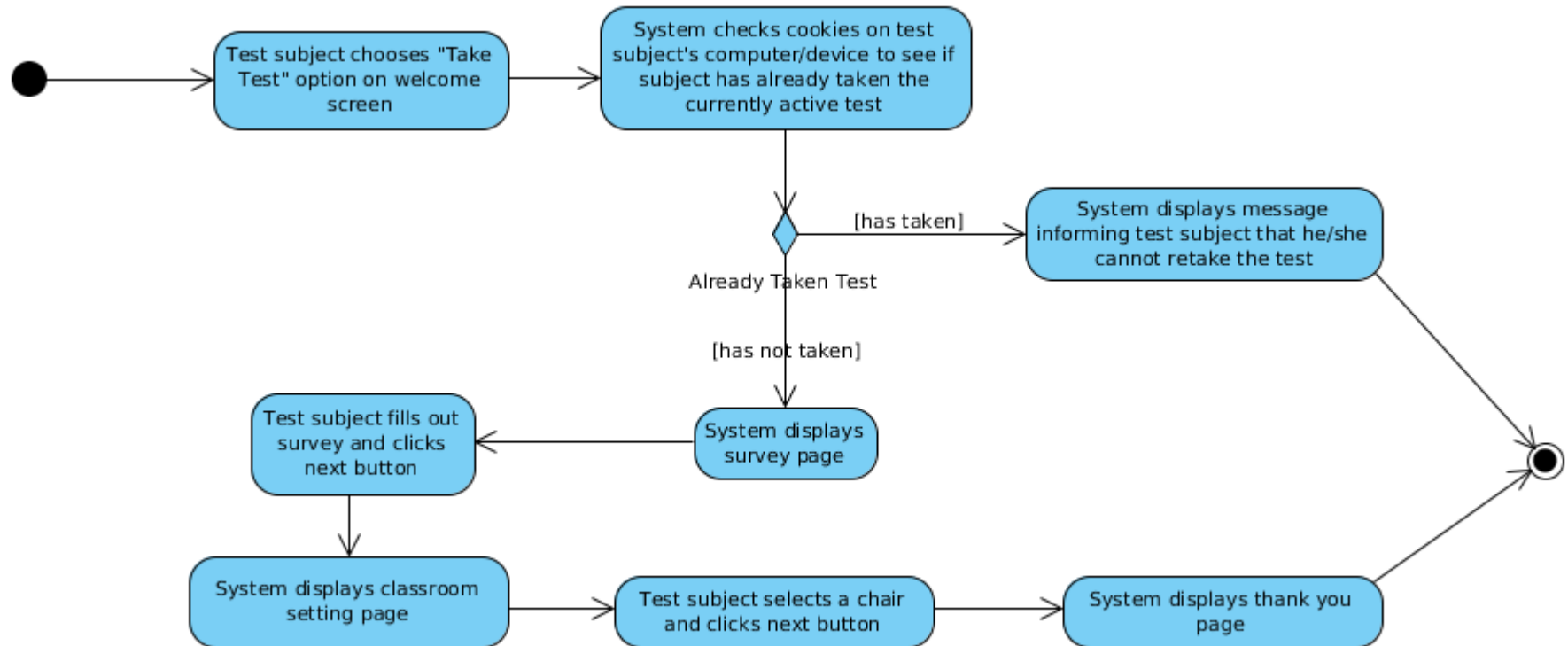+returnToWelcome() : void

DataController

Results
-answers : List
-chair : String
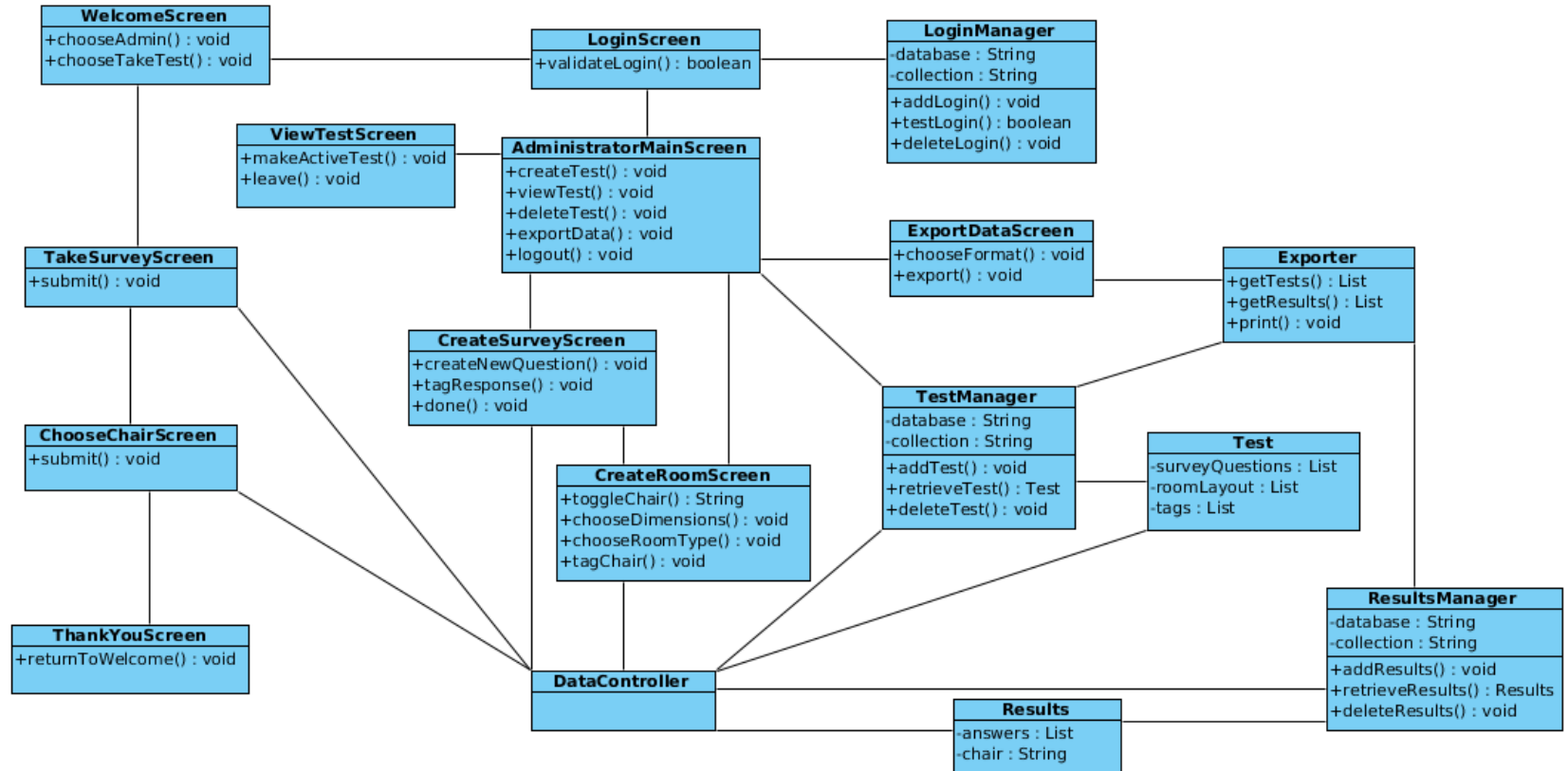
Feature Priorities

- Creating and editing questions -- required
- Configuring virtual room -- required
- Answering questions -- required
- Selecting a seat -- required
- Exporting Data -- required
- Joystick or arrows for navigating room
  - Refinement of functionality as time permits

Potential Risks

- Moving target problem
- Difficulty designing way of easily and reliably downloading data
- Difficulty building app that works equally well in browser and on mobile device

Summary

- Project provides great potential for refinement and iteration of features
- Apache Cordova enables writing one common codebase for Android and web apps
  - Allows use of various CSS and Javascript libraries

Questions?

- Any questions?