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Software Engineering Focus

Final Deliverable

Virtual Labs 3.0
Team #13
Virtual Labs & vLabsAdmin Modules

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Executive Summary

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Introduction

This section is a brief introduction to the current system and it's functionalities, as well as the purpose of building a new system by discussing the current systems limitations.

1.1 Problem Definition

The in production version of Virtual Labs provides an interface through Moodle that allows students to reserve different types of resources which include virtual labs, mentoring and certificate exams. The main interface of the Virtual Labs module is built with jQueryUI and presents the user with tabs describing networking information as well as RDP sessions. At present the RDP session is established through java applets and the virtual machines are hosted on VMware. Users can tinker with the desktops without leaving the virtual labs module. Utilizing Moodle is unnecessary and the current state of this module is becoming outdated in terms of UI and the utilization of Java applets.

In addition there is no easy way for an administrator to maintain the system without having to do things manually like changing production code.

1.2 Scope of System

The scope of the Virtual Labs module extends to the student role. The system allows students to schedule appointment times to use the “lab” and interact with their own virtual environment instance. The student can alter the state of the virtual machine instances assigned to their scheduled lab as well as interact with the remote desktop either in the module window or in a new browser tab. In addition the student is allowed to modify their scheduled appointment by adding time, removing time, or deciding to cancel the appointment.

The system does not allow students to access any other scheduled lab instance but their own. The system does not allow users to configure any virtual machine connection information. The system does not manage quota and any other module's resources. The

system does not allow administrators to access this module. The system does not provide administrators an easy interface to manipulate databases or other criteria like user access.

1.3 Development Methodology

Fortunately for this release, my team and I were upgrading the current version of the Virtual Labs system which meant the design of the system was already completed for us, we merely had to elucidate the changes we planned on making on top of it. Using use case, sequence, and state diagrams to help us out, we were able to set up the foundation for the project and overall design.

1.4 Terminology

- **Virtual Labs** – Different virtual environment configurations designed for students to perform their lab assignments. It is composed of a collection of virtual appliances (also called virtual machines), which are connected by some virtual network components and are deployed on one or more physical machines (also called hosts).
- **WSDL**: (Web Services Description Language) is an XML-based language that provides a model for describing Web services.
- **Guacamole** – is a HTML5 client-less remote desktop gateway
- **eFront** – a modern learning and training platform or virtual learning environment
- **Ajax** – (Asynchronous JavaScript and XML) is a group of interrelated web development techniques used on the client-side to create interactive web applications. With Ajax, web applications can retrieve data from the server asynchronously in the background without interfering with the display and behavior of the existing page.
- **Gateway** – A gateway is a network point that acts as an entrance to another network.
- **LMS** – Acronym for Learning Management System

- **vLabsAdmin** – A module developed to provide an administrator a way to maintain user access and in the future, database tables and other functions

1.5 Overview of Document

Chapter 1 serves as an introduction to this document and provides a clear definition of the problem. In addition to this, this chapter includes a brief explanation of the scope of the Virtual Labs module and some terminology that the user may be unfamiliar with.

Chapter 2 discusses the feasibility of our proposed system. This section describes the current system and its limitations. In addition, it also describes some alternatives that were considered in the planning process for various aspects of this upgrades and which were selected.

Chapter 3 serves as an overview of the project plan. Project organization and work breakdown will be discussed. Chapter 4 contains the proposed system requirements. These requirements vary from functional to nonfunctional and are explained thoroughly. In addition, this chapter includes an analysis section, which contains models and scenarios.

Chapter 5 covers system design including architectural patterns, hardware and software requirements, and security. Chapter 6 goes into the details of the design, covering static and dynamic models and algorithms. Chapter 7 illustrates the exercises in verification taken during development.

Chapter 8 serves as a glossary and Chapter 9 contains the various appendices that include use cases and the various UML diagrams associated with this module.

2. Feasibility Study

This chapter covers the current system's limitations and some alternatives that were considered in the beginning of the development process. To close the chapter off, an explanation of which alternatives were chosen is presented.

2.1 Current System

The current system's Virtual Labs interfaces with Moodle to provide students with a module that simulates a virtual environment. The user interface utilizes a very old version of jQuery and jQueryUI to present the user with tabs describing networking information as well as RDP sessions. This environment is populated by various virtual machine instances that are displayed to the student using Java applets and hosted with a combination of KVM and VMware. The current system also does not give an administrator an easy way of granting users access to Virtual Labs or to make changes in the database.

Current Limitations

- Utilizing Moodle is unnecessary since the eFront LMS can handle the modular functionality needed.
- Java applets are becoming outdated and are being phased out of most major browsers.
- Rather than using both KVM and Vmware, it was decided for uniformity to convert to just KVM
- An administrator should have a one-stop place to maintain various aspects of the system

2.2 Alternatives

- **Alternative 1 – Make Virtual Labs Native to eFront (SELECTED)**

Currently, Virtual Labs hosts its services through eFront but the individual modules interface with Moodle for their modular functionality. This was viewed as an unnecessary step for eFront's modules can support the modules we have built.

This is the solution that has been chosen for this release because we can improve performance by removing Moodle dependencies from not just the code but also in terms of modular size.

- **Alternative 2 – WebNetwork**

Various frameworks were considered for user interface interests.

WebNetwork had a tiled look like Windows 8 and it was very sleek.

Immediately it was liked and was prematurely chosen as the way to go. After further discussion it was observed that migration of the current system would not be easy and the cost would be much higher overall.

- **Alternative 3 – WebRDP**

The current system uses Java applets to host the RDP sessions in the Virtual Labs module. Java applets are being quickly phased out of the major browsers and Virtual Labs will need to upgrade to an HTML5 Web Gateway. WebRDP was not a free software but it was a very solid candidate for us. Until Guacamole was discovered, this was the selected option.

- **Alternative 4 – Guacamole (SELECTED)**

Guacamole is an open source HTML5 client-less remote desktop gateway. It was not only free but performed extremely well under performance tests.

There was a lot of documentation available as well as plugs ins that one could add to the application. This was the solution that has been chosen to be implemented.

2.3 Recommendation

Choosing to make the module a eFront-only module was motivated by time. By making the module an eFront native, code from the current version could be migrated over and the issue becomes one of refactoring rather than starting from scratch which we did not have the time to do. It would not have been feasible at this point in time but maybe teams who work on future releases will make the decision to move away from eFront.

Utilizing Guacamole was an easy decision mainly because it was open-source and free. As developers we could look at the application code ourselves to fully understand what was going on behind the scenes. If we stuck to the decision to use WebRDP, we would have to be in constant contact with the company's developers to achieve the proper functionality needed to fit our needs. In addition, when Guacamole was put under a stress test, it exceeded our expectations and performed wonderfully. It was easy for us to say yes.

Concerning the user interface, I made the decision to utilize multiple frameworks to help make the GUI more user friendly and modern. I did not list these under alternatives

because even though I used jQueryUI for the tabs interface, I used frameworks like Bootstrap and qTips2 for styling and functionality assistance.

3. Project Plan

The following sections serve as an overview of how the development for the proposed system would be planned out throughout the semester. Tasks (stories) will be described and the cost of the proposed system will be estimated and explained.

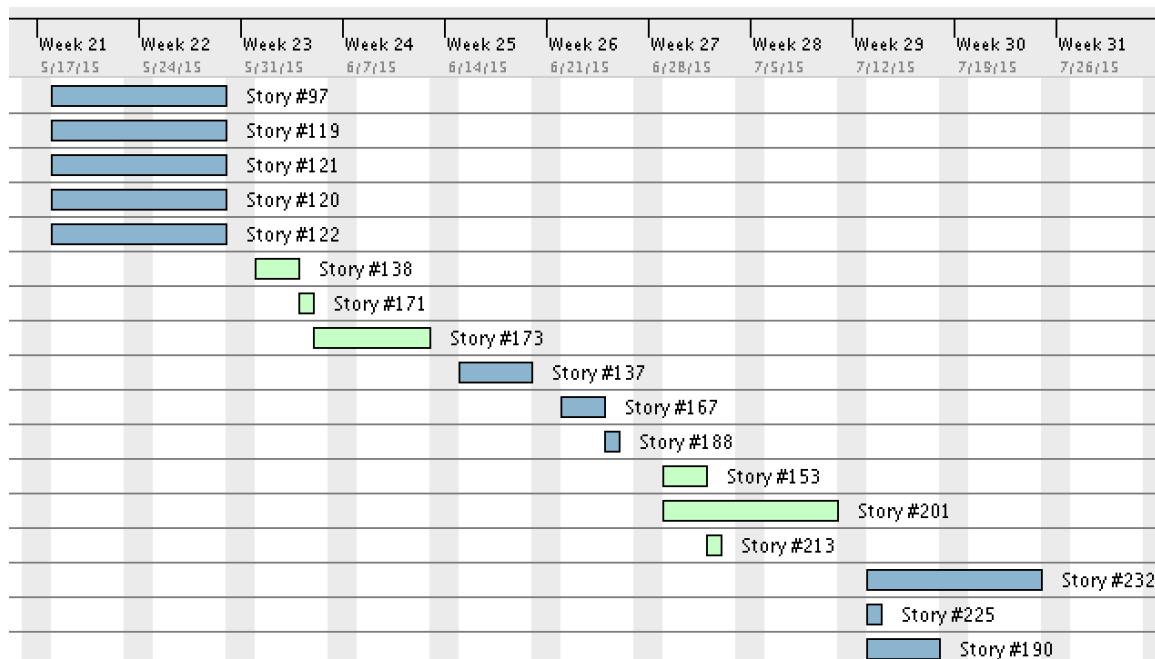


Figure 1: Gantt chart showing work completed over the 5 sprints of development

3.1 Project Organization

Role assigned throughout semester of development:

- Crystal Rivera: Scrum Master and front end developer/tester

3.2 Work Breakdown

This subsection lists the tasks or stories that comprised each sprint of this release of Virtual Labs.

Sprint	Story	Task
1	97	Create alternative prototype of vLabs in eFront
	119	Learn eFront
	121	Learn webRDP
	122	Learn KVM
	120	Learn WebNetwork
2	138	Resize module according to browser window
	171	Present jQuery to the team
3	173	Create vLabsAdmin module
	137	Create module themes consistent with eFront
	167	Grant/deny vLabs access to user type
4	188	Create control navbar in vLabs
	153	Create REST calls with parameters for user RDP sessions
	201	Migrate Moodle vLabs into eFront
5	213	Replace scripts in vLabs module with their online equivalent versions
	232	Finalize vLabs module
	225	Fix the cookie for the encrypted password in eFront
	190	Implement navbar functionality

Table 1: Tasks

4. Proposed System Requirements

This chapter will cover all of the functional and nonfunctional requirements involved with the refactoring and upgrade of the current system. Included will be a brief analysis and references to any relevant diagrams.

4.1 Functional Requirements

Virtual Labs

- The system shall allow the student to access their scheduled appointment of Virtual Labs and if not scheduled, create a default appointment for them.
 - *Reliability*: The vlabs server should be resilient to faults and heavy traffic
 - *Performance*: The system should load the user's scheduled instance within 2 minutes. If the server is down, user should be notified and redirected.
 - *Supportability*: The interface should display correctly on all major browsers: IE, Firefox, Chrome, and Safaris
- The system shall allow the student to modify their scheduled appointment via buttons on the toolbar. The student can add time, remove time, or choose to cancel their scheduled appointment. The change must be reflected in the countdown timer.
- The system shall present the student with all relevant connection information for their scheduled lab. This includes the Kaseya Server.

- The system shall allow the student to open any RDP session of their virtual environment in a new browser tab.
- The system shall present the RDP sessions using Guacamole rather than Java applets. The student should automatically be logged into the virtual machines and be able to work on the desktop.
 - *Performance*: Guacamole should be much faster than Java applets with virtually 0 load time in terms of application load time.
- The system shall allow the student to control the state of the virtual machines via buttons on the toolbar. The student can power off, power on, shutdown, restart, suspend, or refresh the virtual machine.
- The system shall allow the student to choose custom display and color depth options for the displayed virtual machines. The system must save these settings to use upon future use by the student. The system must update the RDP session accordingly.

vLabsAdmin

- The system shall allow the administrator to modify user type's Virtual Labs access. The system must save these changes and they must be reflected immediately. (User Access Tab)
- The system shall allow the administrator to manage data and schema for the Quota Store. The system shall provide functions such as data import, export, deletion, schema import, export and deletion. (dbAdmin Tab)

- *Reliability*: Transactions should happen quickly and changes reflected immediately.
 - *Usability*: The administrator is assumed to know how the database is structured as to not infringe upon constraints.
- The system shall display all the current hosts to the administrator and allow the administrator to add, delete, or edit them. (Manage Hosts Tab)
 - The system shall allow an administrator to choose how he or she wants to set up the virtual environment

4.2 Analysis of Functional Requirements

4.2.1 Scenarios

Virtual Labs

Scenario Name: Add Time to Appointment

Participating Actors: **Student**

- Flow of Events:
- 1.1 The student decides that they want more time to use their Virtual Labs instance.
 - 1.2 The student enters the amount of time they want to add in terms of minutes in the input field on the toolbar
 - 1.3 The student then clicks the plus button to add the time
 - 1.4 The student then sees their countdown timer increase by the amount of time they entered
-

Scenario Name: Remove Time from Appointment

Participating Actors: **Student**

- Flow of Events:
- 1.1 The student decides that they don't need as much time as they're allotted and want to remove some time from their appointment
 - 1.2 The student enters the amount of time they want to remove in terms of minutes in the input field on the toolbar
 - 1.3 The student then clicks the minus button to remove the time
 - 1.4 The student then sees their countdown timer decrease by the amount of time they entered
-

Scenario Name: Cancel Appointment

Participating Actors: **Student**

Flow of Events:

- 1.1 The student decides that they don't want to use the rest of their appointment time.
- 1.2 The student clicks the eject button on the toolbar
- 1.3 The student is redirected to the "powered by..." page

Scenario Name: Change Virtual Machine State

Participating Actors: **Student**

Flow of Events:

- 1.1 The student decides that they want to alter the state of the current virtual machine they are using.
- 1.2 The student clicks the appropriate command button on the toolbar
- 1.3 The student is shown a message in the frame stating that the virtual machine's state is changing.
- 1.4 If appropriate, this message will eventually be replaced by a new instance of the RDP session.

Scenario Name: Change RDP Display Options

Participating Actors: **Student**

Flow of Events:

- 1.1 The student decides that they want to alter the display options of their RDP sessions. Specifically the resolution and/or the colordepth
- 1.2 The student chooses the appropriate option from the drop down menus available in the toolbar
- 1.3 The student is then presented with an RDP session that

is reestablished with the setting they just selected.

Scenario Name: Open RDP Session in a New Tab

Participating Actors: **Student**

Flow of Events:

- 1.1 The student decides that they want to open the current RDP session in a new tab
- 1.2 Navigating to the tab they are currently on, the student clicks on the new tab icon at the top right of the tab
- 1.3 A new browser tab opens with the proper RDP connection loaded.

vLabsAdmin

Scenario Name: Revoke User Access

Participating Actors: **Administrator**

Flow of Events:

- 1.1 The administrator decides to remove access from a certain user type
- 1.2 The administrator clicks the 'Remove' button for the corresponding row in the table under the 'User Access' tab
- 1.3 The system updates the database with this change and the table in the tab shows the row removed

Scenario Name: Grant User Access

Participating Actors: **Administrator**

Flow of Events:	<ol style="list-style-type: none">1.1 The administrator decides to grant a specific user type access to Virtual Labs1.2 The administrator clicks 'Add a new user'1.3 The administrator makes their selections in the dialog and clicks 'Submit'1.4 The system updates the database accordingly and the table in the user interface shows the new row.
-----------------	--

4.2.2 Use Case Models

The following use case models elucidate the use case scenarios illustrated by the models in the appendix. These concern appointment changes, virtual machine state changes, and RDP session customization changes. Essentially these use cases are for the functionality of the toolbar in Virtual Labs.

Virtual Labs

Use Case Name:	Modify Appointment	ID: UC - 01	Type: External
Participating Actors:	Student		
Description:	Describes how a student can modify their appointment using the time control buttons on the toolbar.		
Flow of Events:	1.5 The user enters the amount of time they wish to modify their appointment by. 1.6 The user clicks the 'Add time' or 'Remove time' button 1.7 The system grabs the input value and calls the calendar scheduler to add/remove the amount from the user appointment 1.8 The system updates the countdown timer appropriately		
Exceptional Case:	1.1 The User does not enter a valid number in the input field 1.2 The system notifies the User the appointment has not been updated successfully due to server errors.		
Entry Condition:	<ul style="list-style-type: none">The User is a Student and clicks 'Add time' or 'Remove time'		
Exit Condition	<ul style="list-style-type: none">The system has returned success and the countdown is updated appropriately or not successful and the user is notified.		

Use Case Name: Cancel Appointment	ID: UC - 02	Type: External
--	--------------------	-----------------------

Participating Actors: **Student**

Description: **Describes how a student can cancel their appointment using the 'Eject' button on the toolbar.**

Flow of Events:

- 1.1 The user clicks the 'Eject' i.e. cancel button on the toolbar
- 1.2 The system calls the calendar scheduler to cancel the user appointment
- 1.3 The system redirects the user to the "powered by..." page.

Exceptional Case:

- 1.1 The system notifies the User the appointment has not been updated successfully due to server errors.

Entry Condition:

- **The User is a Student and clicks 'Eject'**

Exit Condition

- **The system has returned success and the user is redirected or not successful and the user is notified.**

Use Case Name: Change Virtual Machine State	ID: UC - 03	Type: External
Participating Actors:	Student	
Description:	Describes how a student can change the current state of the appropriate virtual machine using the vmcontrols on the toolbar.	
Flow of Events:	<p>1.1 The user clicks one of the vm control buttons on the toolbar</p> <p>1.2 The system grabs the appropriate command and builds an object with the virtual machine information</p> <p>1.3 The system uses this object and user credentials to send a web service call to change the state of the virtual machine.</p> <p>1.4 The system presents the user with a message with the updated virtual machine state. If power on, restart, or refresh, the message will then be replaced by the RDP session when the machine is ready.</p>	
Exceptional Case:	<p>1.1 The system notifies the User the command has not been run successfully.</p>	
Entry Condition:	<ul style="list-style-type: none"> • The User is a Student and clicks 'Power Off', 'Power On', 'Shutdown', 'Suspend', 'Restart', or 'Refresh' 	
Exit Condition	<ul style="list-style-type: none"> • The system has successfully changes the state of the virtual machine or notified the user if not successful. 	

Use Case Name: Change RDP Session Display	ID: UC - 04	Type: External
Participating Actors:	Student	
Description:	Describes how a student can change the resolution and/or color depth of the RDP session.	
Flow of Events:	<p>1.1 The user selects an option from either the 'Resolution' or 'Color Depth' dropdown menus.</p> <p>1.2 The system grabs the selected option and updates the database with the user selection.</p> <p>1.3 The system uses this selected option to appropriately reestablish the RDP connection with the updated display choices and presents the user with the new connection.</p>	
Exceptional Case:	<p>1.1 The system notifies the User the settings have not been saved successfully, due to server errors</p>	
Entry Condition:	<ul style="list-style-type: none"> • The User is a Student and chooses an option in either the 'Resolution' or 'Color Depth' select menus 	
Exit Condition	<ul style="list-style-type: none"> • The system has successfully saves the options chosen by this user in the database or notifies the user if an error occurs. Regardless, the user is presented with an updated RDP session. 	

Use Case Name: Open RDP Session in New Tab	ID: UC - 05	Type: External
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Participating Actors: **Student**

Description: **Describes how a student can open the current RDP session in a new browser tab**

Flow of Events:

- 1.1 The user clicks on the 'Open RDP session in a new tab' button located in the tab.
- 1.2 The system grabs the RDP connection source URL and uses it to open a new browser tab with that connection.

Exceptional Case:

- 1.1 The connection fails.

Entry Condition:

- **The User is a Student and clicks on the 'Open RDP session in a new tab' button**

Exit Condition

- **The system has successfully opened a new browser tab with the appropriate connection URL**

vLabsAdmin

Use Case Name: Remove Virtual Labs Access from User Type	ID: UC - 06	Type: External
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Participating Actors: **Administrator**

Description: **Describes how an administrator revokes Virtual Labs access from a user type**

Flow of Events:

- 1.1 The administrator clicks the 'Remove' button on the appropriate row in the table
- 1.2 The system updates the database with this change and the table in the tab shows the row removed

Exceptional Case: 1.1 The user still has access

Entry Condition: • **The User is an Administrator and clicks a 'Remove' button in the table**

Exit Condition • **The system has successfully updated the database and access has been revoked**

Use Case Name: Grant Virtual Labs Access to User Type	ID: UC - 07	Type: External
Participating Actors:	Administrator	
Description:	Describes how an administrator grants Virtual Labs access to a user type	
Flow of Events:	1.1 The administrator clicks 'Add a new user' 1.2 The administrator selects at least one option in the dialog form 1.3 The administrator clicks 'Submit' 1.4 The system updates the database and the table in the UI shows the added users	
Exceptional Case:	1.1 The form is submitted empty 1.2 The added user does not have access	
Entry Condition:	<ul style="list-style-type: none"> • The User is an Administrator and clicks 'Add a new user' 	
Exit Condition	<ul style="list-style-type: none"> • The system has successfully updated the database and access has been granted to the appropriate user(s) 	

4.2.3 Static Model

Please refer to the diagrams in Appendix C. This section contains a brief explanation of what those UML diagrams illustrate.

The diagram in Appendix C-1 illustrates the multi-tiered architecture this system is fashioned after. The diagram in Appendix C-3 is an object diagram that shows the tiers and their components mapped to the hardware and software requirements.

The diagram in Appendix C-2, illustrates the interaction between the tiers in a high level sense. The Client sees only the view. They interact with the tabs_interface and with the toolbar. When the client requires some action to be done, the controller classes take over which are JavaScript functions that handle the events to prepare the requests for the Web Services. Then the PHP files under Model handle the rest of the application logic, sending the request and processing the response to send back to the client.

4.2.4 Dynamic Model

Please refer to the diagrams in Appendix D. This section contains a brief explanation of what those UML diagrams illustrate.

Included in this appendix are sequence diagrams that match the use cases and scenarios aforementioned in this document. These diagrams illustrate the flow of messages between the different parts of the system involved when this use case is invoked.

In addition to these, there are the state diagrams that illustrate the flow of the two big control shifts of the system: time (i.e. scheduling) control and virtual machine control. They begin with the server ready to process requests. Then upon receiving a request, processing it to see which route of action it should take. Once that is decided, the action is carried out and a response is sent back.

5. System Design

This section will go into detail on the design of the Virtual Labs and vLabsAdmin modules. First will be a high-level discussion of the system describing the multi-tier architecture and service-oriented patterns. This continues into the decomposition and hardware software mapping. The end of this chapter covers persistent data design and some security/privacy points. Sections 1- 4 are the same for both modules.

5.1 Overview of System

The Virtual Labs module is a component of the web service Virtual Labs 3.0. This module serves as a virtual environment that students can use to interact with virtual instances of machines and familiarize themselves with virtual states and other topics relevant to IT Automation. vLabsAdmin serves as a way for an administrator to maintain this service as well as the other services that are apart of this system. The overall system is broken down into 4 main tiers: the Client tier, Presentation tier, Application Logic tier, and the Database Management tier. The client and presentation tiers provide the graphical interface that students and administrators who use the system will be interacting with. The application logic tier manages all the business logic behind the scenes. This tier handles scheduling and other web services needed to interact with the virtual environment of Virtual Labs. For vLabsAdmin this tier isn't encapsulated in a web service but as functions that handle the database operation requests. The final tier manages any and all database services.



Figure 1: Multi-Tier Design

Since our application logic for Virtual Labs is handled by web services, there is another architectural pattern involved: service-oriented design. What this design pattern strives for is to encapsulate functionality into one service that can be called a provider. This provider then can be called by other applications and services.

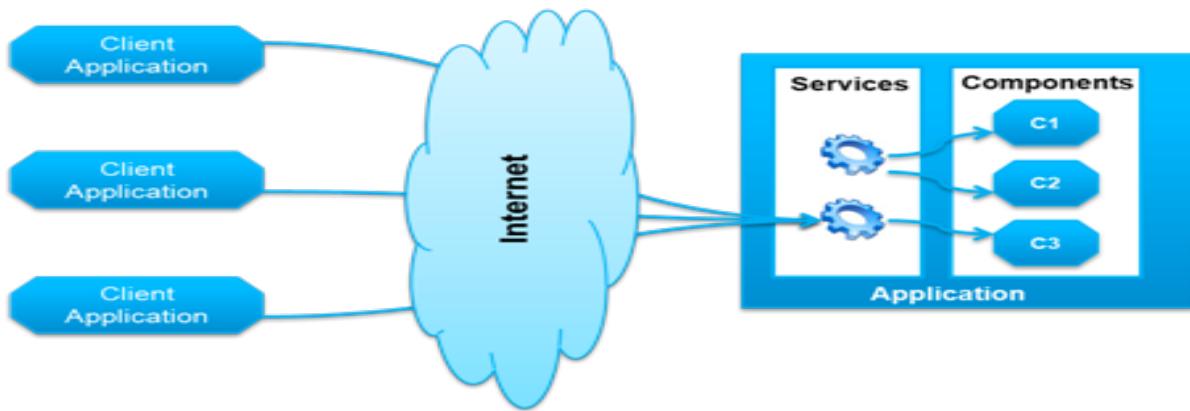


Figure 2: Service-Oriented Design

5.2 Subsystem Decomposition

This subsection covers the multi-tier design discussed in the previous section.

- **Client Tier** – This provides the graphical interface that the users will be using as an entry point into the system since this is all they see. This tier will be a web interface using PHP, jQuery, and JavaScript to provide the functionality
- **Presentation Tier** – This is the eFront module component that uses PHP and smarty to render the HTML content to the users
- **Application Logic Tier** – This tier represents the web service in Virtual Labs. The tier itself serves a bridge (i.e. controller) between the presentation tiers to the database tier.
- **Database Management Tier** – This tier handles any and all database operations required by the application logic.

5.3 Hardware/Software Mapping

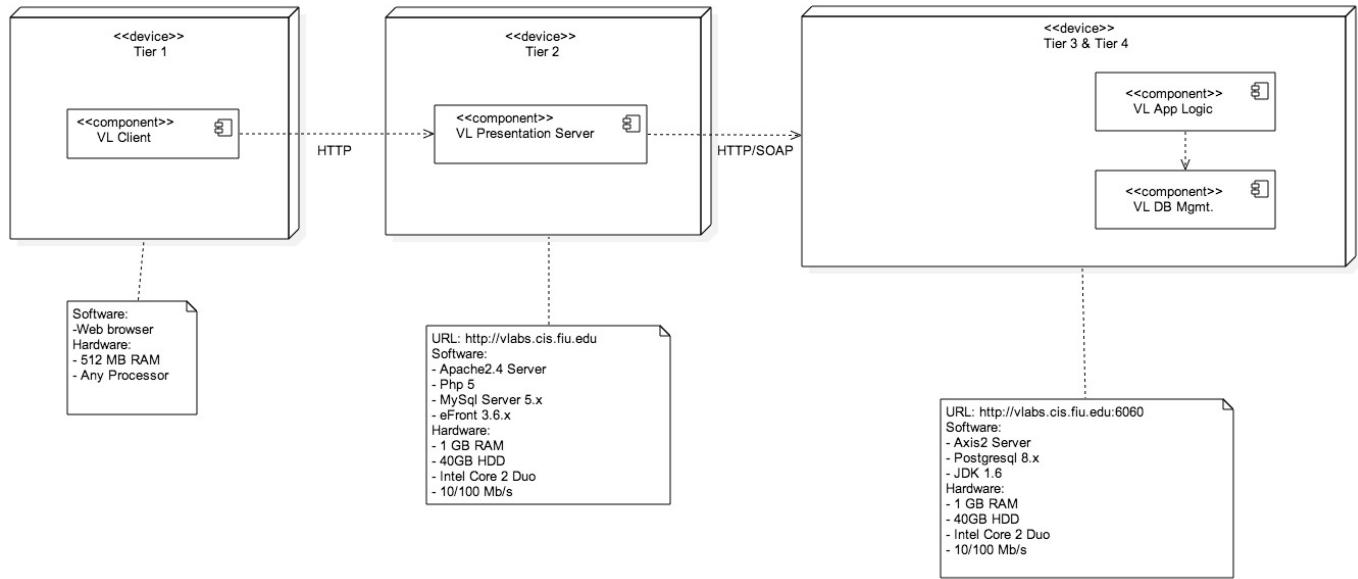


Figure 3: Object Diagram describing hardware/software mapping

Since the system is a multi-tiered system, the hardware and software mapping is illustrated by tier.

- **Tier 1:** The client only needs access to a web browser like Chrome or Firefox. Hardware specs include a computer with at least 512MB of RAM.
- **Tier 2:** This handles the presentation of the system. For software, we need an Apache 2.4 server, PHP 5, a MySQL server version 5 or higher, and an eFront installation version 3.6 or higher. For hardware at least 1 GB of RAM is needed, along with 40GB of HDD and an Intel Core 2 Duo processor
- **Tiers 3 & 4:** For the web services and data storage sections of our system we need the following for software: an Axis2 server, postgresql version 8 and higher, and JDK version 1.6. Hardware specs are the same as for Tier 2.

5.4 Persistent Data Design

From a high-level point of view, the Virtual Labs module has two main “objects” in terms of persistent data: A schedule object for the appointment and an instance object for the virtual machines.

➤ “Schedule”

- *veInsSchId*: a unique id to identify the schedule object
- *curDate*: the current date
- *endDate*: the end date for the appointment
- *reason*: status message
- *resourceType*: “VIRTUAL_LAB” – specifies the appointment type
- *success*: status boolean

➤ “Instance”

- *kserver*: this virtual environment’s Kaseya Server instance and its connection info
- *vminfo*: this virtual environment’s virtual machine instances and their connection info
- *reason*: status message
- *success*: status boolean

5.5 Security and Privacy

To briefly touch upon security and privacy for the Virtual Labs module

- There is a predefined set of user types that dictates which are granted vLabs access and which are not. If the user type is not in this list, it defaults to false (i.e. no access)
- Each user's virtual lab is scheduled with a unique veInsSchId that is used to load the appropriate virtual labs instance in combination with user credentials.
 - No user can access a virtual lab instance that is not their own.
- Similarly, each virtual machine for the virtual environment has its own unique vmInsSchId to identify the individual machines.
 - This ensures isolation of the workspace
- User passwords are encrypted and stored in a cookie; passwords are saved in permanent storage.

For vLabsAdmin

- This module is only viewable by an administrator; students have no way of accessing this module

6. Detailed Design

In this chapter a detailed description of the Virtual Labs and vLabsAdmin modules and their subsystems is given. In the first section, a short explanation of the four subsystems and their structure. In addition, the static models made are presented. Furthermore the dynamic models are also included and the code specification for the main interface is discussed.

6.1 Overview

The Virtual Labs and vLabsAdmin module is divided into the four subsystems that have been previously discussed.

First, the Client whose purpose is to provide a Web interface that students can interact with to work with their virtual environment. This subsystem is in charge of the presentation and interaction with the user through an HTML page with a tab interface made using jQueryUI and functionality through JS. vLabsAdmin is structured the same way with the module providing an entry point for the administrator through an HTML page with a tab interface.

Next, the Presentation Server whose role consists of PHP server pages that handle requests from the Client and redirects them to the Application Logic Server, which is the third tier.

For the Virtual Labs module, the Application Logic Server is a Java Web service that handles the logic of all the modules involved in the Virtual Labs 7.0 system. It has various skeletons that have methods to handle these request and it interacts with requests in a request and respond fashion. For vLabsAdmin, the Application Logic tier consists of eFront database functions that serve as the bridge to the 4th and last tier.

Last, the Database Management Server handles the persistent data and handles any database requests and services

6.2 Static Model

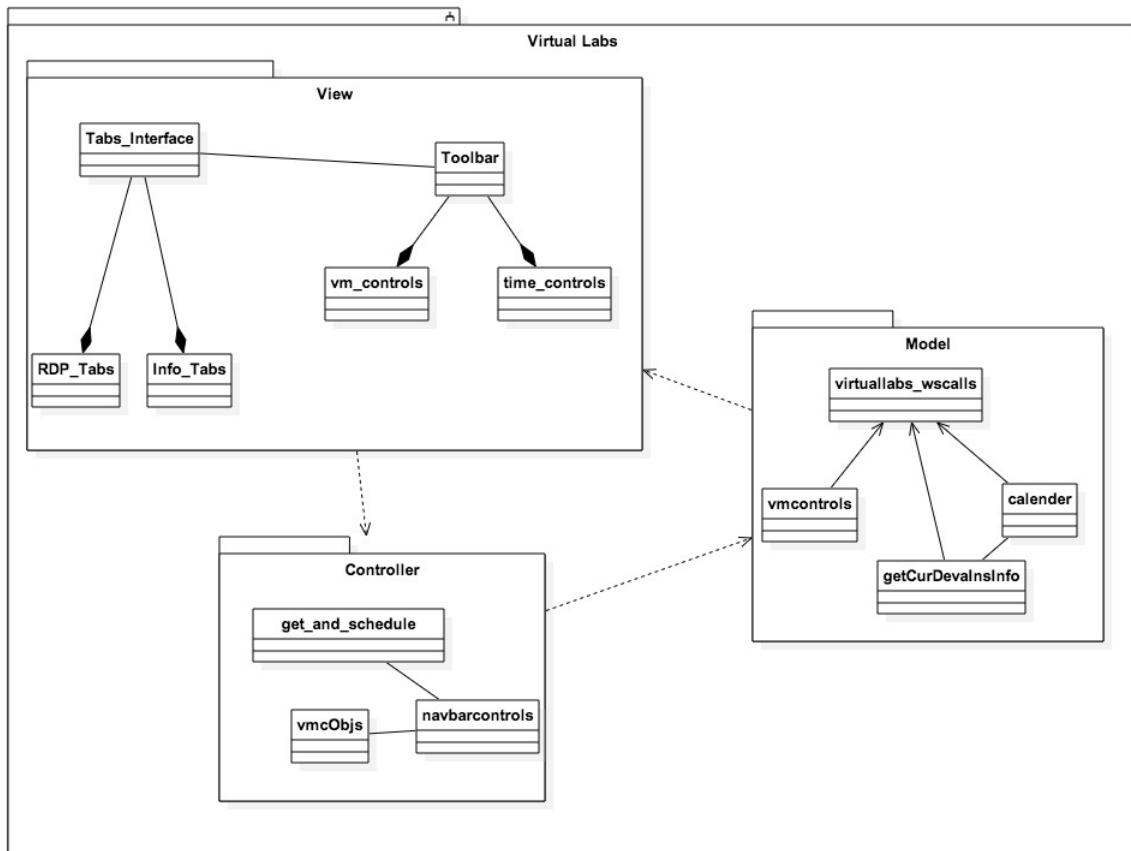


Figure 4: Package Diagram illustrating the tiered view of Virual Labs

The above diagram illustrates the interaction between the tiers in a high level sense. The Client sees only the view. They interact with the tabs_interface and with the toolbar. When the client requires some action to be done, the controller classes take over which are JavaScript functions that handle the events to prepare the requests for the Web Services. Then the PHP files under Model handle the rest of the application logic, sending the request and processing the response to send back to the client.

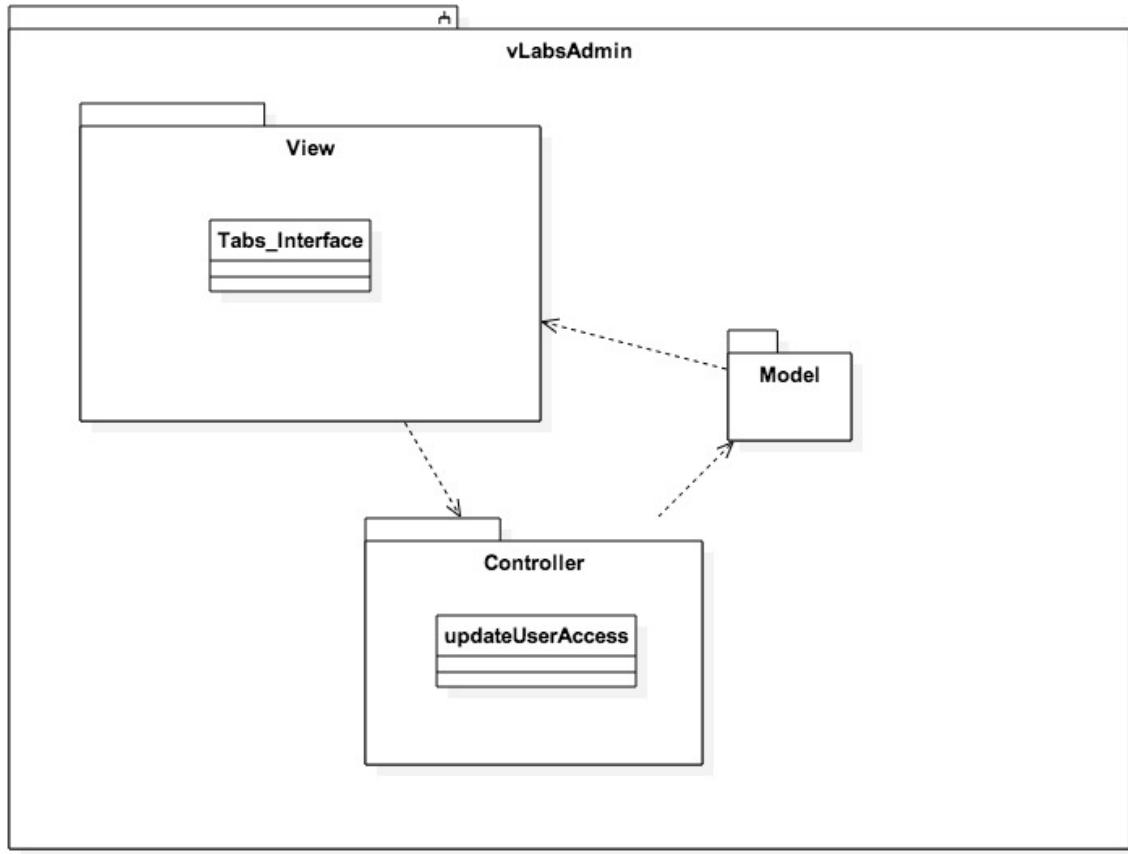


Figure 5: Package Diagram illustrating the tiered view of vLabsAdmin

In a similar fashion, vLabsAdmin provides a tab interface for the administrator to interact with. The application logic is handled in the javascript and then the updateUserAccess PHP file which speaks to the Model.

6.3 Dynamic Model

Included in this section are the state diagrams that illustrate the flow of the two big control shifts of the Virtual Labs module: time (i.e. scheduling) control and virtual machine control. They begin with the server ready to process requests. Then upon receiving a request, processing it to see which route of action it should take. Once that is decided, the action is carried out and a response is sent back. Included are also the sequence diagrams that match these state diagrams. These diagrams illustrate the flow of messages between the different parts of the system involved when this use case is invoked. Also, the respective diagrams for vLabsAdmin are discussed.

Virtual Labs

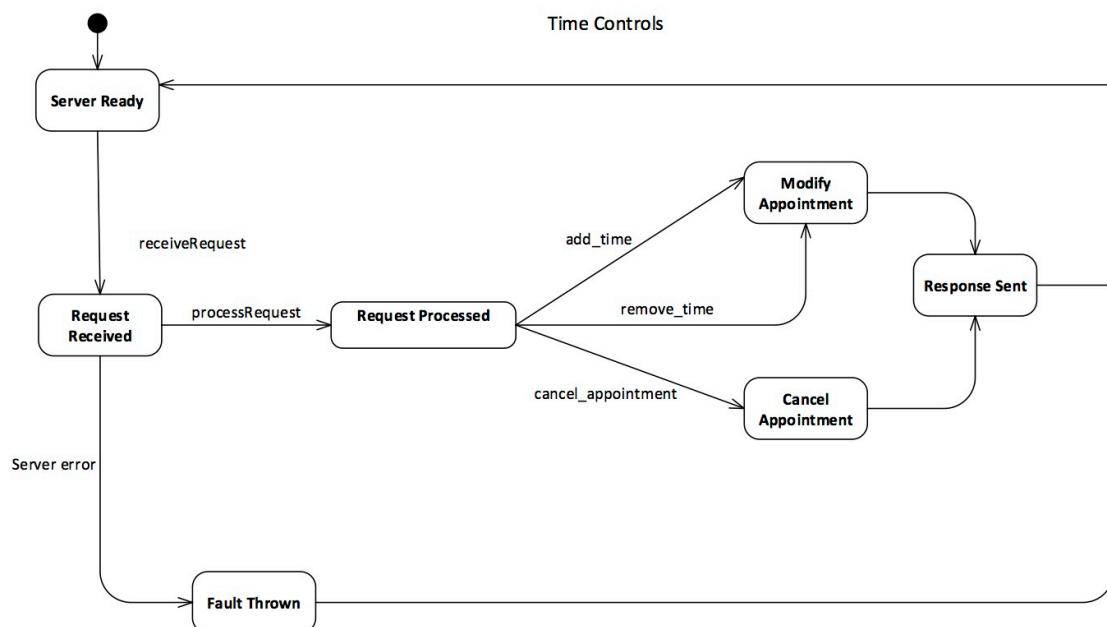


Figure 6: State Diagram for updating an appointment

The above illustrates the flow of control when a student uses the toolbar to update their appointment. Similarly, below illustrates the flow when a student uses the virtual machine controls in the toolbar to change the state of the virtual machine.

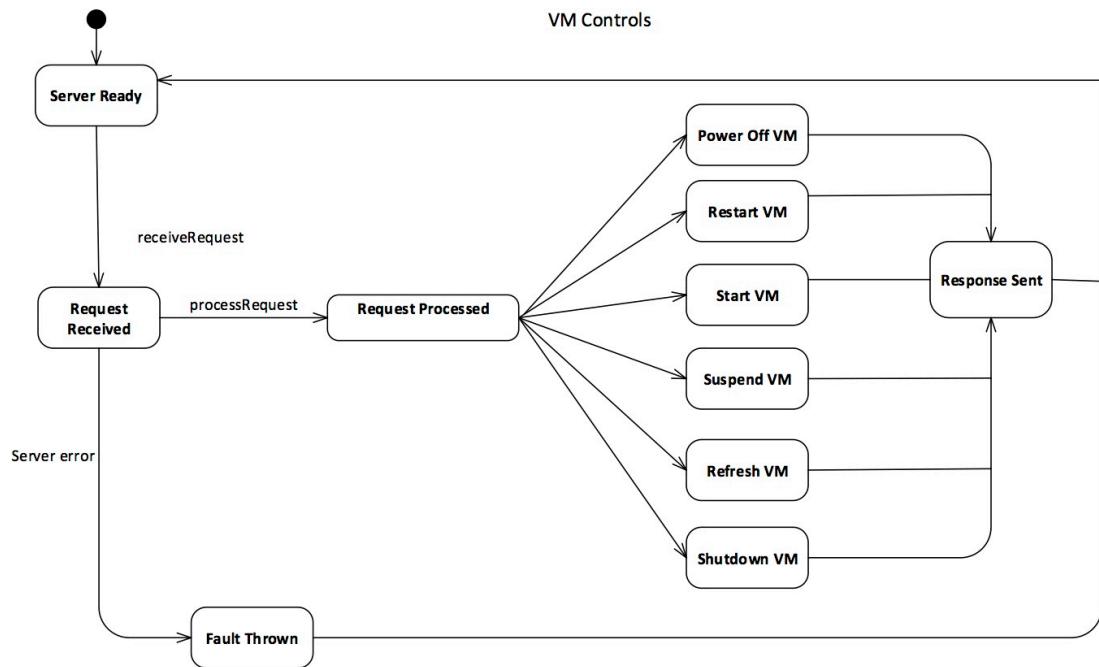


Figure 7: State Diagram for updating the state of a virtual machine

The following are the appropriate sequence diagrams to the above state diagrams.

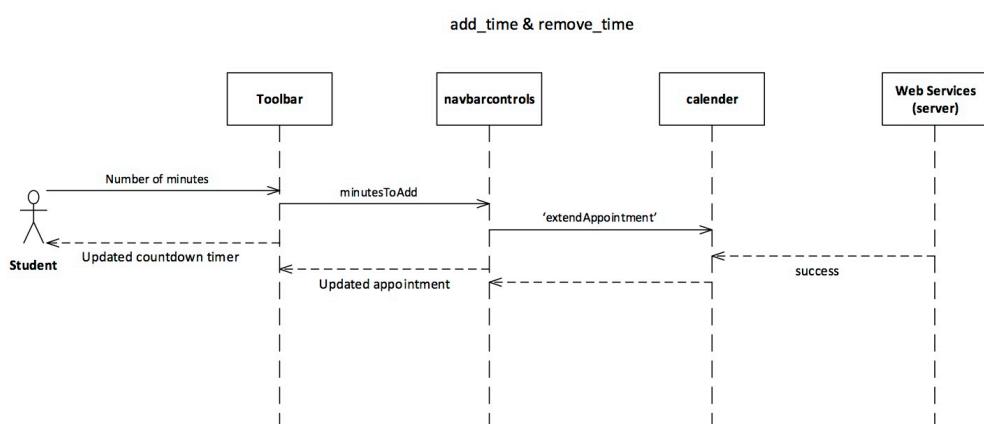


Figure 8: Sequence Diagram for adding or removing time from an appointment

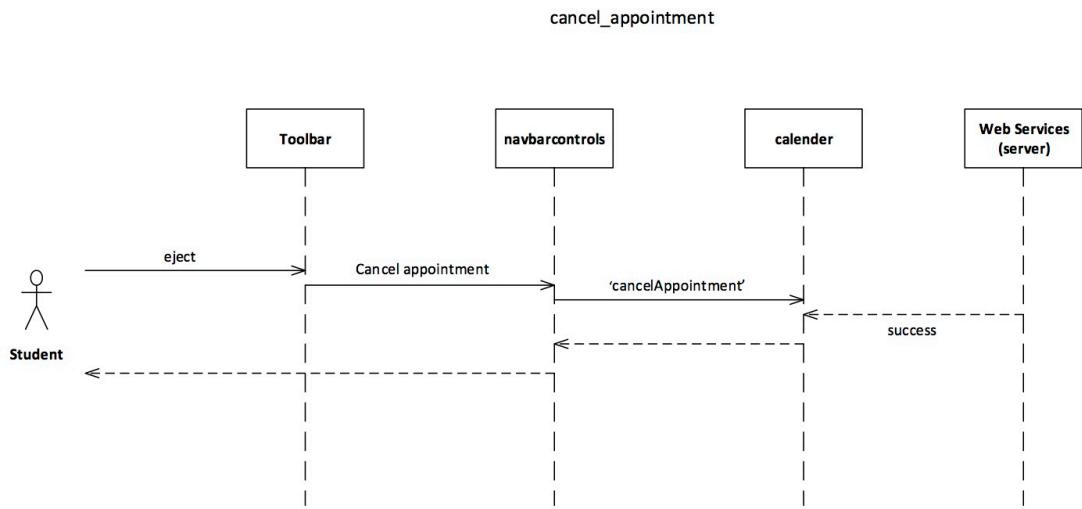


Figure 9: Sequence Diagram for cancelling an appointment

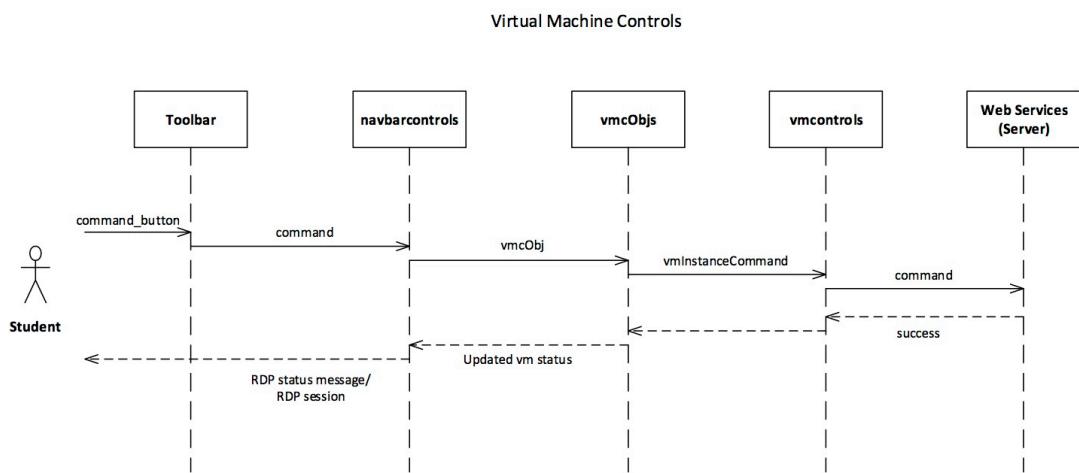
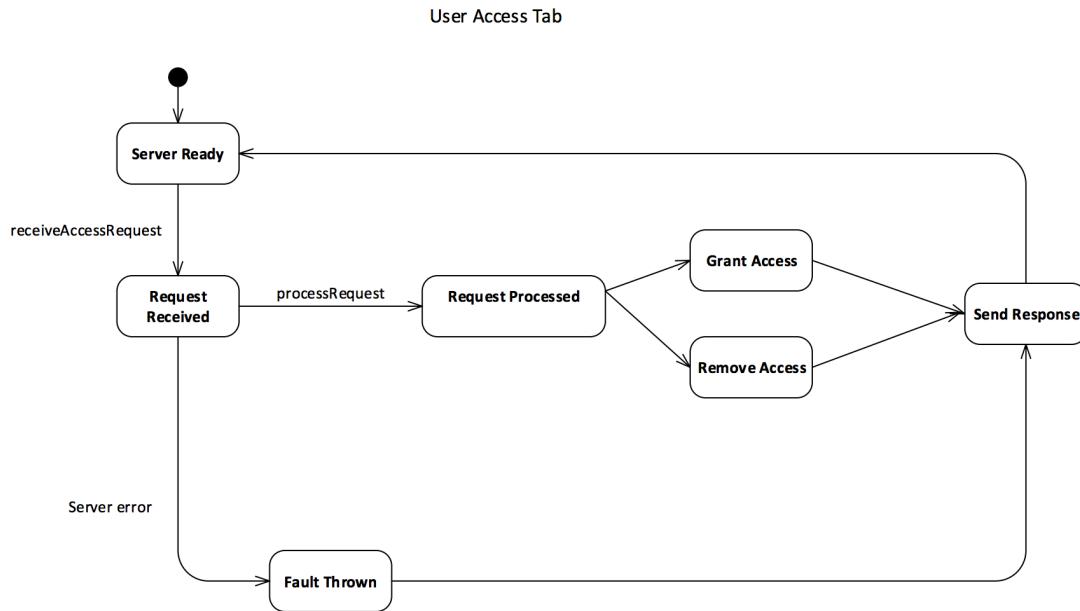


Figure 10: Sequence Diagram for altering the state of a virtual machine

vLabsAdmin



The above state diagram illustrates the flow of action taken once an administrator decides to either revoke access from a user type, or grant them access. The sequence diagrams below illustrate the interactions that happen in the system when these actions are invoked.

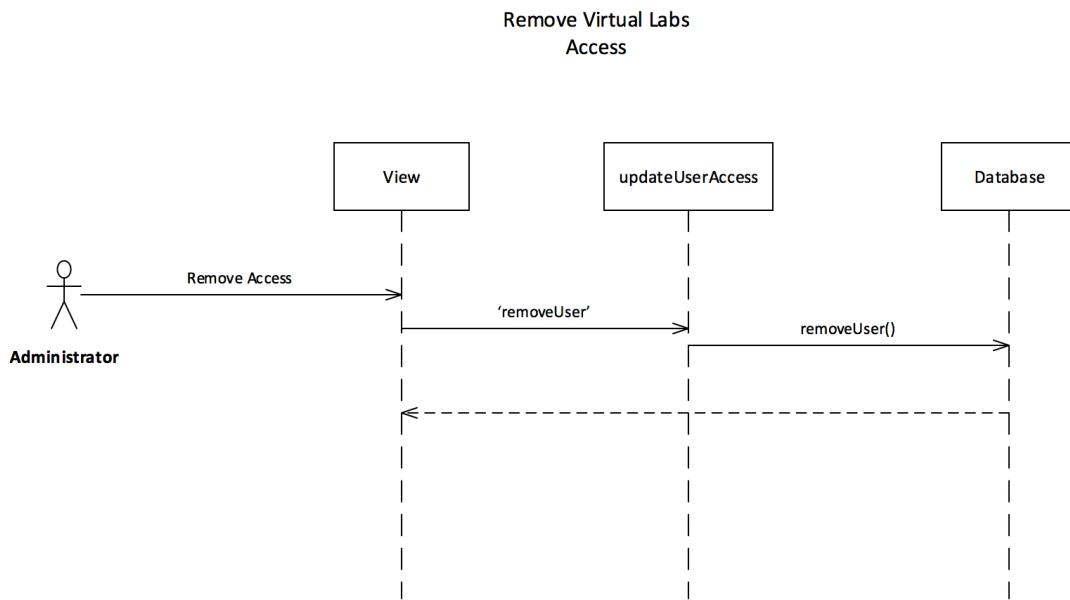


Figure 12: Sequence Diagram for revoking access from a user type

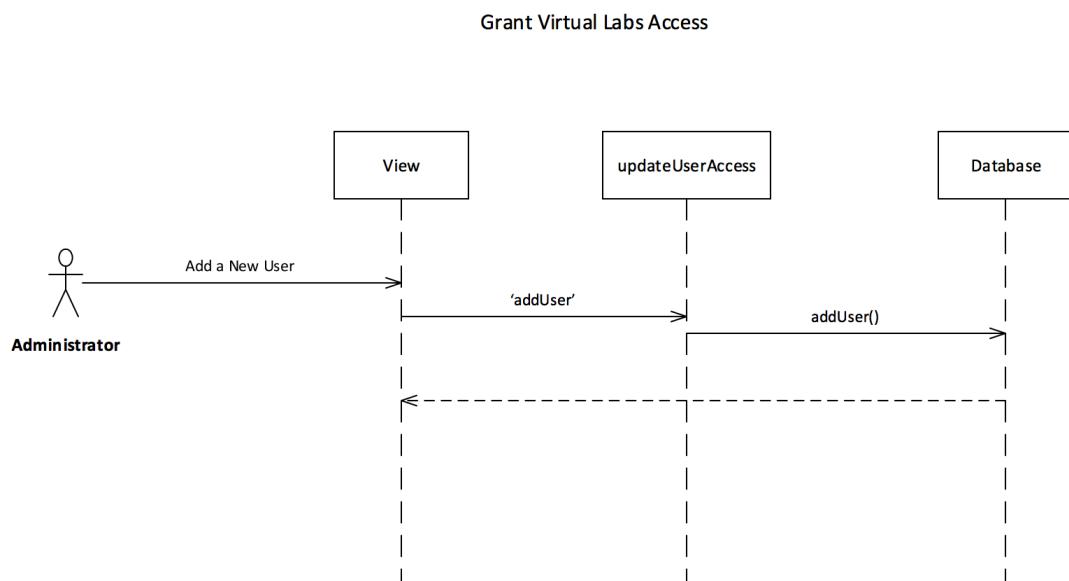


Figure 13: Sequence Diagram for granting access to a user type

6.4 Code Specification

The following are JavaScript files that handle and prepare user event requests to be sent to the Web Server. These files are responsible for handling the core functionality of the module

getandschedule.js - This file handles the loading and scheduling of the user instance

- **Attributes:**
 - Devawasdisplayed
 - Interval
 - certInterval
 - firstTime
 - isLeftOpen
 - iscrttest
 - is_admin_user
 - is_mentor_user
 - rdpTabInfo
 - currentTabSelected
- **Functions:**
 - reloadDevaFrontEmbedded()
 - getCurDevaInsInfo()
 - createGuacId()
 - createInstantAppointmentEmbedded()
 - getCreateNewEventObjFromInstantAppEmbedded()
 - getUserCurrentTime()
 - scheduleAppointmentWithEncryptedPassword()
 - getRequestType()
 - getUserCurApp()
 - getCreateNewEventObjFromInstantApp4CTForm()
 - hideVMPassword()
 - fixDate()
 - parseISO8601()
 - startStatusInterval()

navbarcontrols.js – This file handles all toolbar button events

- **Attributes:**
 - timeOverIsSet
 - currentAppointmentId
 - currentAppointmentEndDate
 - isTimeSet
 - stateInterval
 - iscrttest

- **Functions:**

- setupTimeControlButtons()
- setupVMControlButtons()
- modifyAppointment()
- cancelAppointment()
- setTimeControl()
- checkAppointmentOver()
- markCurrentInstanceState()
- buttonBundleClick()
- showCmdMessages()
- parseStateFromCommand()
- setRdpTabInfo()
- getRdpTabInfo()
- getVMControlHTML()

vmcObjs.js – This file virtual machine command requests

- **Functions:**

- vmcObj()
- checkRDPMachineStatus()
- isRDPMachineReady()
- getInstanceState()
- vmInstanceCmd()

7. System Validation

This chapter will go over what testing has been done on the Virtual Labs and vLabsAdmin modules to verify their correctness.

7.1 System Tests

Unfortunately due to time constraints, I did not have enough time to develop test stubs or scripts. In addition in terms of documented test cases I will discuss the format of what system verification I managed to accomplish.

For both modules I tested cross browser functionality. I did these systematically, going through the use cases browser by browser. I didn't really have a test structure and I realize this was bad practice. Regardless, my findings were as follows.

Virtual Labs

- **All:** Tab rerouting of the connection info table and the network diagram does not work. Clicks on the network diagram merely reload the module. Clicks in the connection info table always redirects to Domain Controller
- **Google Chrome:** All other functionality of the module works as expected
- **Firefox:** All other functionality of the module works as expected
- **Safari:** iFrame focusing inconsistent. It works sometimes and sometimes it doesn't
- **Internet Explorer:** iFrame focusing does not work. In addition, the resolution and color depth dropdowns do not initialize with values from the database though the data is read correctly for the change is reflected in the session

vLabsAdmin

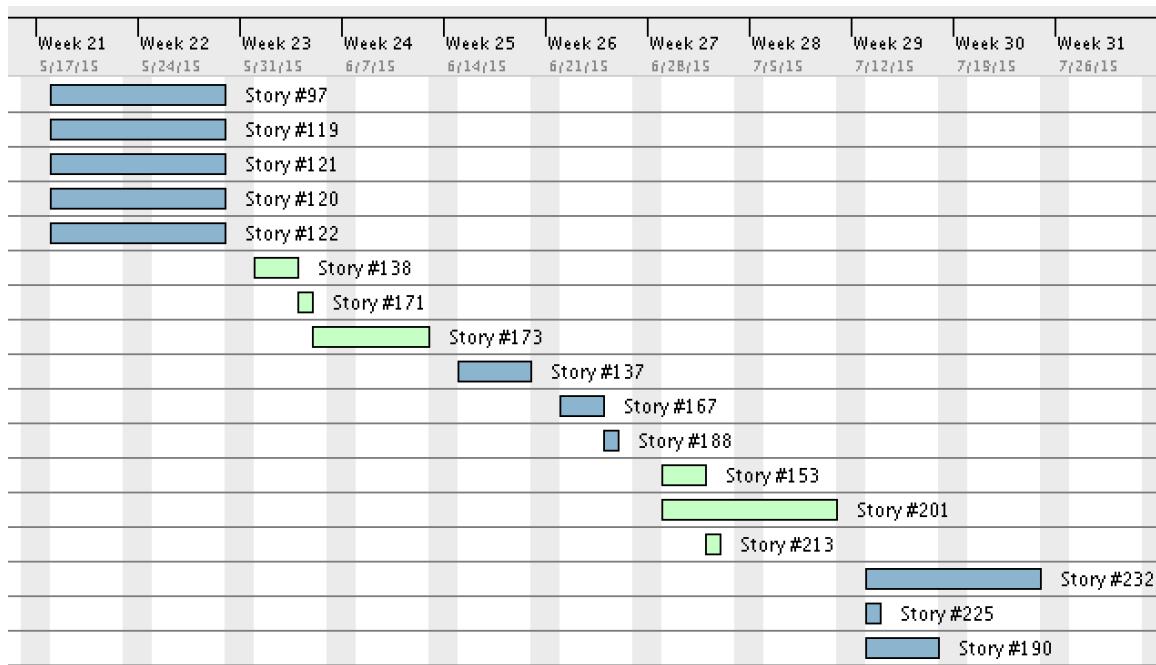
- **Google Chrome:** All functionality works as expected
- **Firefox:** All functionality works as expected
- **Safari:** All functionality works as expected
- **Internet Explorer:** All functionality works as expected

8. Glossary

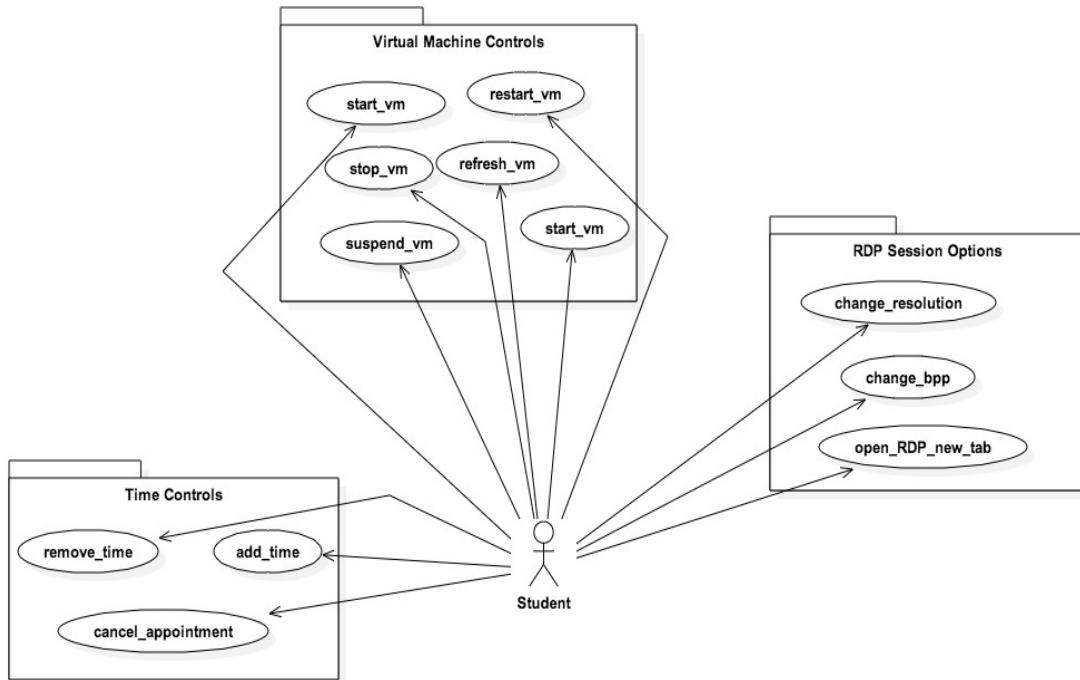
- **Virtual Labs** – Different virtual environment configurations designed for students to perform their lab assignments. It is composed of a collection of virtual appliances (also called virtual machines), which are connected by some virtual network components and are deployed on one or more physical machines (also called hosts).
- **WSDL**: (Web Services Description Language) is an XML-based language that provides a model for describing Web services.
- **Guacamole** – is a HTML5 client-less remote desktop gateway
- **eFront** – a modern learning and training platform or virtual learning environment
- **Ajax** – (Asynchronous JavaScript and XML) is a group of interrelated web development techniques used on the client-side to create interactive web applications. With Ajax, web applications can retrieve data from the server asynchronously in the background without interfering with the display and behavior of the existing page.
- **Gateway** – A gateway is a network point that acts as an entrance to another network.
- **KVM** – Kernel-based Virtual Machines is a virtualization infrastructure for the Linux kernel that converts it into a hypervisor.
- **VMware** – a virtualization software.

9. Appendix

9.1 Appendix A – Project Schedule



9.1 Appendix B – Use Cases



User Story # 97 – Create alternative prototype vLabs modules in eFront

Tasks:

- Research Full Screen Module Capability
- Create Alternative Prototype 2 - eFront and jQueryUI
- Study Existing Module
- Create Alternative Prototype 1- eFront and Bootstrap
- Study Smarty

Acceptance Criteria:

- The alternative prototypes must provide students with the information captured in the following screenshots. Note that all the contents from the screenshots must be available to the students in each alternative prototype, but the way the information is presented must be different.
- The alternative prototypes must allow students to connect to their five Windows virtual machines using the Web-based remote desktop technology found in #124.
- The UI experience in the different prototypes must be smooth and user friendly.
- The UI in the alternative prototypes must have the same look and feel as that of eFront.
- When the eFront theme is changed, the changes must be reflected in the alternative prototypes too with no apparent big difference.

User Story # 119 – Learn eFront

Tasks:

- I can develop a hello world eFront module that works properly.
- I can develop an eFront module that users can be automatically signed in it using their eFront credentials.
- I can support eFront themes in my newly created eFront modules.
- No plaintext password is required to be saved nor transit cross network to support single-sign-on modules.

Acceptance Criteria:

- I can develop a hello world eFront module that works properly.
- I can develop an eFront module that users can be automatically signed in it using their eFront credentials.
- I can support eFront themes in my newly created eFront modules.
- No plaintext password is required to be saved nor transit cross network to support single-sign-on modules

User Story # 121 – Learn webRDP

Acceptance Criteria:

- I can develop a web page that can use applet-based webRDP to remotely login to a Windows machine.
- I can use all the different parameters supported by the applet-based webRDP to dynamically change the RDP session configuration on the web page.
- I can develop a web page that can use the HTML5-based webRDP to remotely login to a Windows machine.
- I can use all the different parameters supported by the HTML5-base webRDP to dynamically change the RDP session configuration on the web page.
- I can set up the webNetwork server side to scale when the HTML5-based webRDP is in use by many end users (target is 100 concurrent users).

User Story # 122 – Learn KVM

Acceptance Criteria:

- I can install and configure KVM on a server.
- I can create a gold image for Windows Server 8 and Windows 7 on KVM.
- I can use KVM's API to create new virtual machines from the previously created gold images.
- I can use KVM's API to start/pause/stop/restart/etc. virtual machines in a pool of KVM servers

User Story # 120 – Learn webNetwork

Acceptance Criteria:

- I can install a WebNetwork instance that is scalable (target is 100 concurrent users).
- I can configure the WebNetwork instance to support eFront themes and have the same look and feel.
- I can adjust the WebNetwork instance so that it allows users to sign in programmatically (as opposed to manually via a login page) using an API (e.g., REST API, Web Services, or simple http get/post).
- I can adjust the WebNetwork instance to support an API, if not existing already, that allows user management (create new user in WebNetwork, delete, modify, add to a group, etc.).

User Story # 138 – Resize module according to browser

Tasks:

- Enable new tab functionality for RDP sessions
- Fix iframe focus issues

Acceptance Criteria:

- The vLabs module must smoothly be resized following the resize of the browser window.
- The vLabs module must make most use of the space available and adjust properly.
- The vLabs module must resize the RDP windows, images tables, etc. in such a way that the product owner approves; this means that it may take a number of iterations before the product owner like the way resize is performed.

User Story # 171 – Present jQuery to the team

Acceptance Criteria:

- The presentation should contain the fundamentals of the jQuery language and syntax
- The presentation should demonstrate how to use simple jQuery commands within a HTML document

User Story # 173 – Create vLabsAdmin module

Acceptance Criteria:

- The vLabsAdmin module should have the same look and feel as the vLabs module
- The vLabsAdmin module should only be accessible to an administrator

User Story # 137 – Create module themes consistent with eFront

Tasks:

- Create/drop settings tables on install/uninstall
- Find an alternative implementation that does not involve DB

Acceptance Criteria:

- When the theme in eFront is changed to any available themes, the vLabs module will change its look and feel in almost the same way.

User Story # 167 – Grant/Deny vLab access to user type

Tasks:

- Add New User Modal
- Create/drop enabled_user_types table on install/uninstall
- Reflect users_vLabsGranted table in module
- Create users_vlabsgranted DB table in eFront

Acceptance Criteria:

- When admin clicks on vLabsAdmin module, admin can access this feature.
- Using this feature, admin can grant or deny access to vLabs to different user types.
- When a user with a user type that does not have access to vLabs logs into the system, the vLabs module is hidden

User Story # 188 – Create control nav bar in vLabs

Acceptance Criteria:

- The nav bar has a look similar to the pictures above

User Story # 153 – Create REST Calls with Parameters for User RDP Sessions

Tasks:

- Encrypt/decrypt user password
- Create RESTful calls to pass URL parameters

Acceptance Criteria:

- The URL should follow the format in this examples: <http://vlabs.cis.fiu.edu:8080/guacamole/#/client/webRDP?host=vc9.cis.fiu.edu&port=50491&username=icard005test&password=encryptedPassword&domain=ITTC>
- All the required information, including the host, port, username, password, and domain should be gathered in the eFront vLabs module to create the REST call.
- The password should be encrypted in a way that can be decrypted to its original form on the vLabs Guacamole server side.
- If the target virtual machines, in this case vc9.cis.fiu.edu:50491, is running and reachable via the specified port using RDP, and the vLabs Guacamole server has correctly implemented its part, the session is created successfully.
- The user does not need to enter his/her credentials to access any of the virtual machines; the user is automatically logged into the VMs.

User Story # 201 – Migrate moodle vLabs into eFront

Tasks:

- Defect: Fix BlueHtml5 theme

Acceptance Criteria:

- The current functionalities in production should work correctly once migration is complete
- The RDP sessions should use Guacamole instead of the applet
- The fixes and changes discovered/applied to the older module attempt should be integrated and functional

User Story # 213 – Replace scripts in vLabs Module with their equivalent online versions

Acceptance Criteria:

- The module should show no visual changes in appearance to the current system.
- The module shall perform all functions that it has previously been able to do.
- The module should be smaller than the current module.

User Story # 232 – Finalize vLabs module

Acceptance Criteria:

- The module is fully tested and functional

User Story # 190 – Implement nav bar functionality

Acceptance Criteria:

- The appointment time is updated according to the option chosen on nav bar
- The vm session responds correctly to command chosen on nav bar
- The countdown timer shows the correct time left in the appointment for that user

User Story # 225 – Defect: Fix encrypted password cookie in eFront

Tasks:

- The password is encrypted properly and is grabbed correctly.

9.3 Appendix C – User Interface

Virtual Labs

The screenshot shows the Kaseya University vLab module. At the top, there's a navigation bar with links for Home, Kaseya 7.0 Fundamentals Workshop, and vLab. On the right of the navigation bar are links for Cardenas I. (icard005test), Messages, a search bar, and a Logout link. Below the navigation bar is a blue header bar with the text "vLab". Underneath this are two main sections: "Options" and "Announcements". The "Options" section contains links for Lesson information, Glossary, Forum, and Virtual Lab 7.0. The "Announcements" section says "No announcements". To the right of these is a "Instructor-Led Workshop Schedule (30 Jul 2015)" section. It shows a calendar for July 2015 with the date 30 highlighted. The calendar grid is as follows:

S	M	T	W	T	F	S
					1	2
	6	7	8	9	10	11
	13	14	15	16	17	18
	20	21	22	23	24	25
	27	28	29	30	31	

Figure C-1: The Virtual Labs Module

The screenshot shows a loading screen for a virtual lab appointment. At the top, there's a navigation bar with links for Home and Virtual Lab 7.0. On the right of the navigation bar are links for Cardenas I. (icard005test), Messages, a search bar, and a Logout link. Below the navigation bar is a blue header bar with a timer input field showing "minutes: 5" and four control buttons (+, -, up, down). Underneath this is a circular progress bar with a "Please Wait..." message in the center.

Figure C-2: When Virtual Labs schedules an appointment for you, you get a loading screen

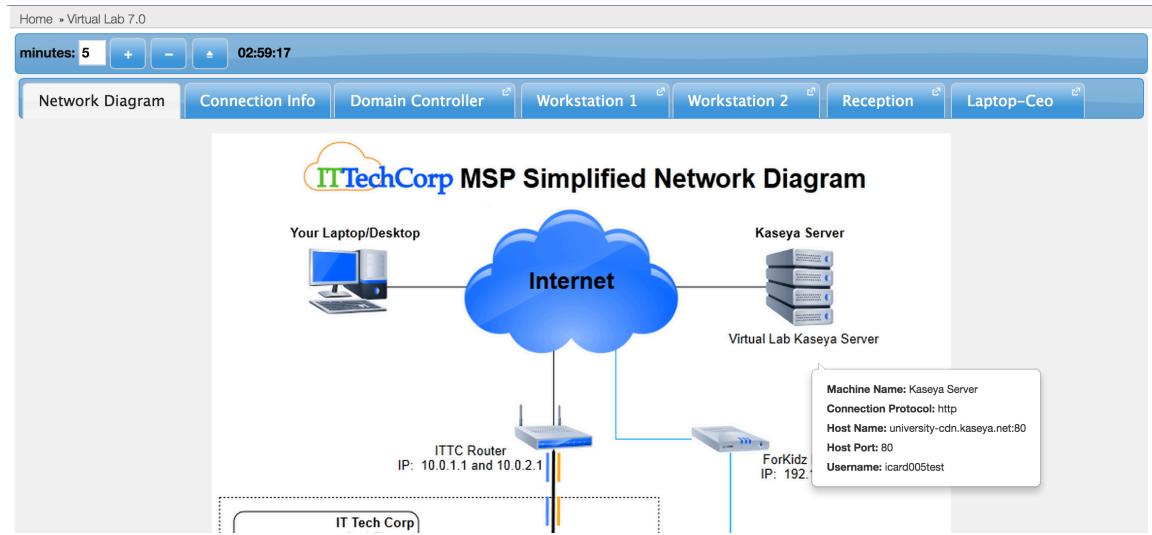


Figure C-3: The main interface of Virtual Labs

minutes: 5 + - ▲ 02:59:05

Network Diagram Connection Info Domain Controller Workstation 1 Workstation 2 Reception Laptop-Ceo

Machine Name	Connection Protocol	Host Name	Host Port	Username	Password	Domain
Kaseya Server	http	university-cdn.kaseya.net:80	80	icard005test		
dc (Domain Controller)	RDP	vc12.cis.fiu.edu	51486	icard005test		ITTC
ws1 (Workstation 1)	RDP	vc12.cis.fiu.edu	51487	icard005test		ITTC
ws2 (Workstation 2)	RDP	vc12.cis.fiu.edu	51488	icard005test		ITTC
reception	RDP	vc12.cis.fiu.edu	51489	icard005test		
laptop-ceo	RDP	vc12.cis.fiu.edu	51490	icard005test		

Figure C-4: The connection information tab

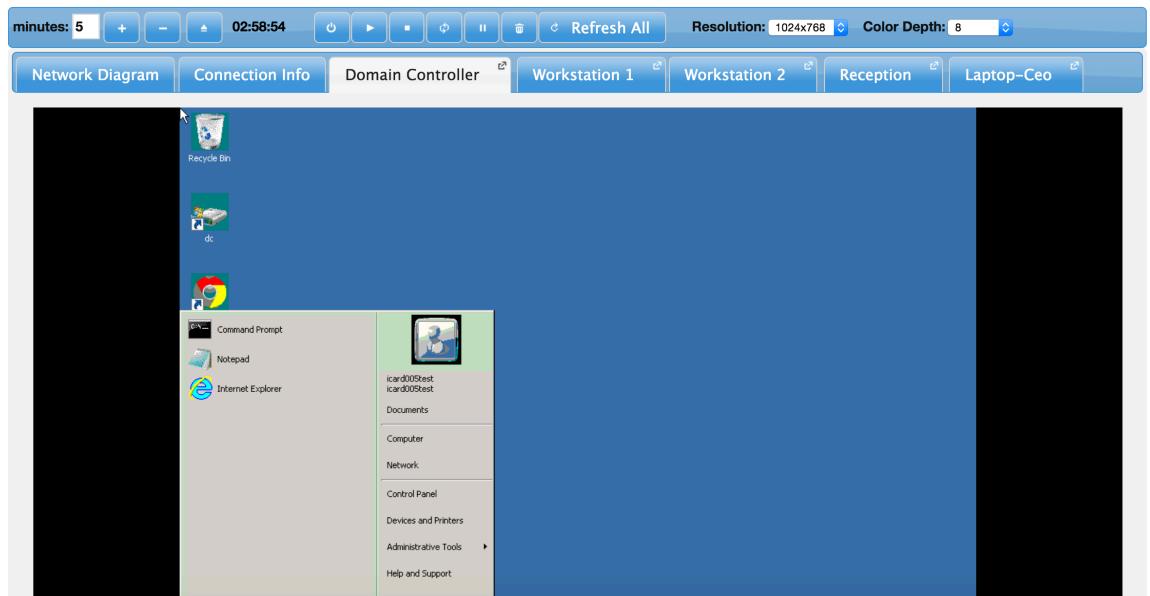


Figure C-5: What an RDP tab looks like along with the vmcontrols on the toolbar.

VlabsAdmin

A screenshot of the "User Access" tab in the vLabsAdmin interface. The page has a header "Home » vLabsAdmin". Below the header, there are two tabs: "User Access" (which is selected) and "Tab2". Underneath the tabs, there's a section titled "Grant/Deny vLabs Access" with a "Add New User" button. The main content is a table with three columns: "User ID", "User Type", and "Remove". There is one row in the table with the values "1" and "fiu" under the respective columns. To the right of the "Remove" column is a red "X" icon.

Figure C-6: The User Access Tab

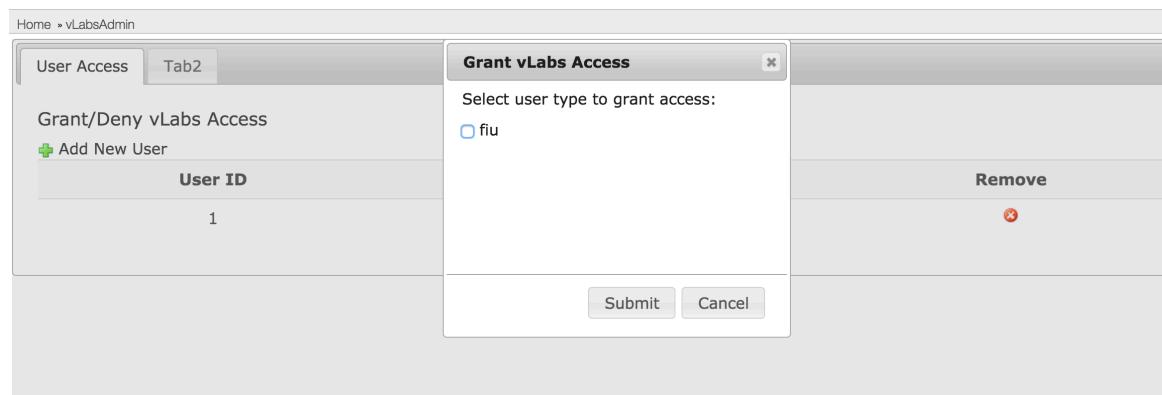


Figure C-7: Add a New User Dialog

9.4 Appendix D – Static UML Diagrams

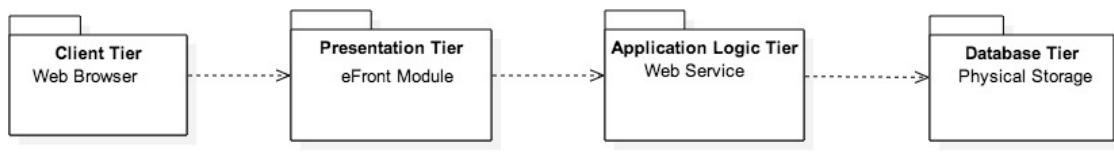


Figure D-1: Package Diagram representing tiered logic

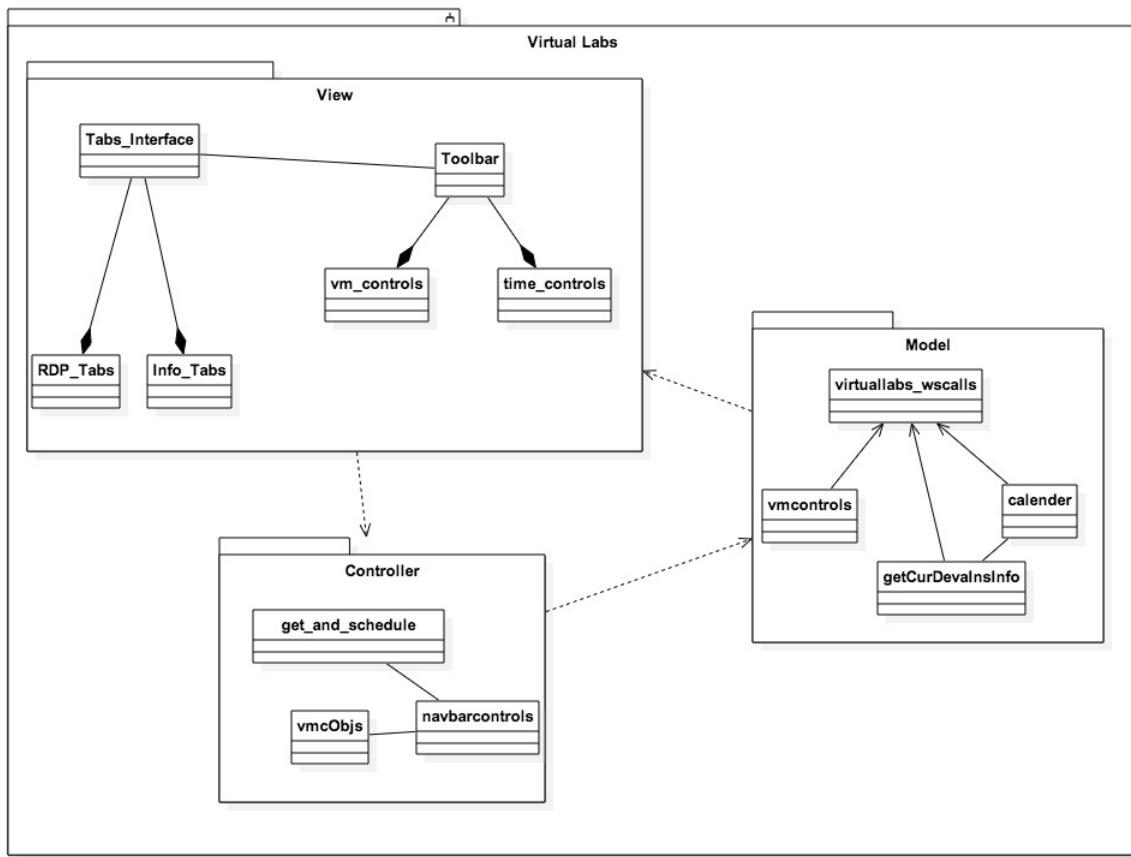


Figure D-2: Package Diagram representing tiered logic

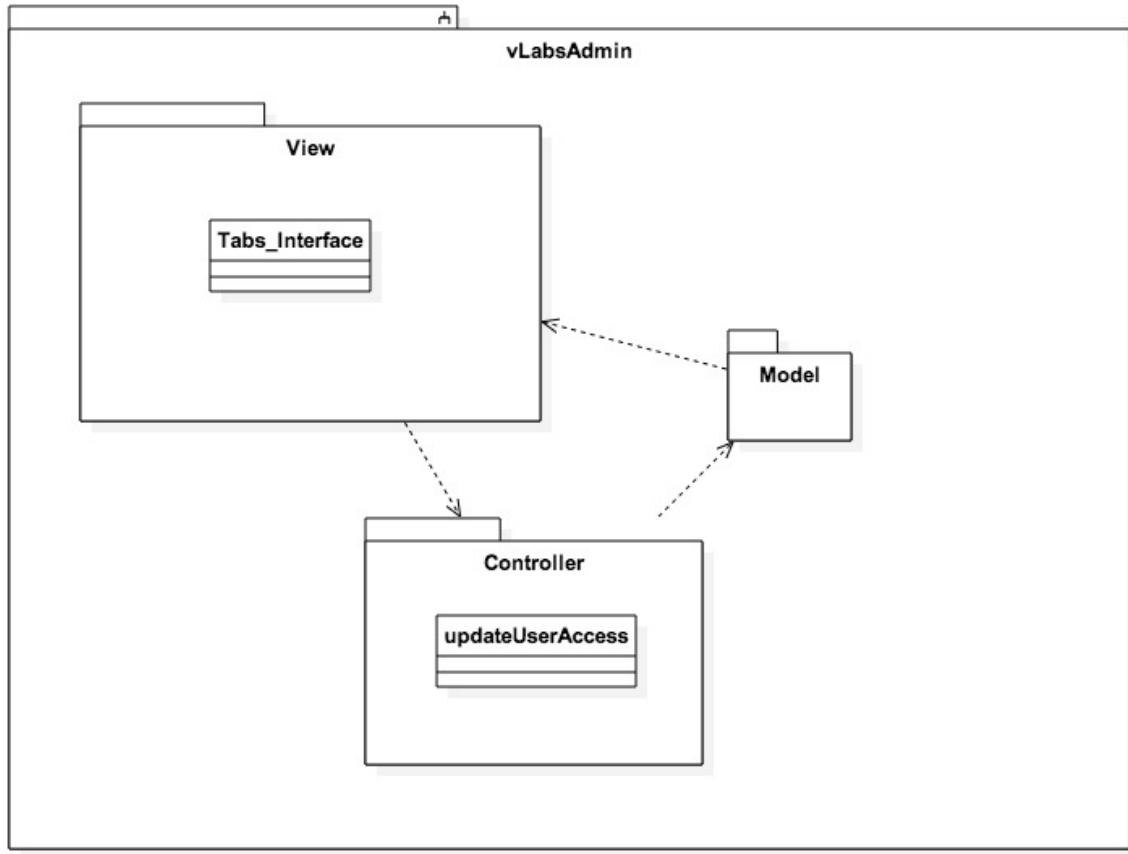


Figure D-3: Package Diagram for vLabsAdmin

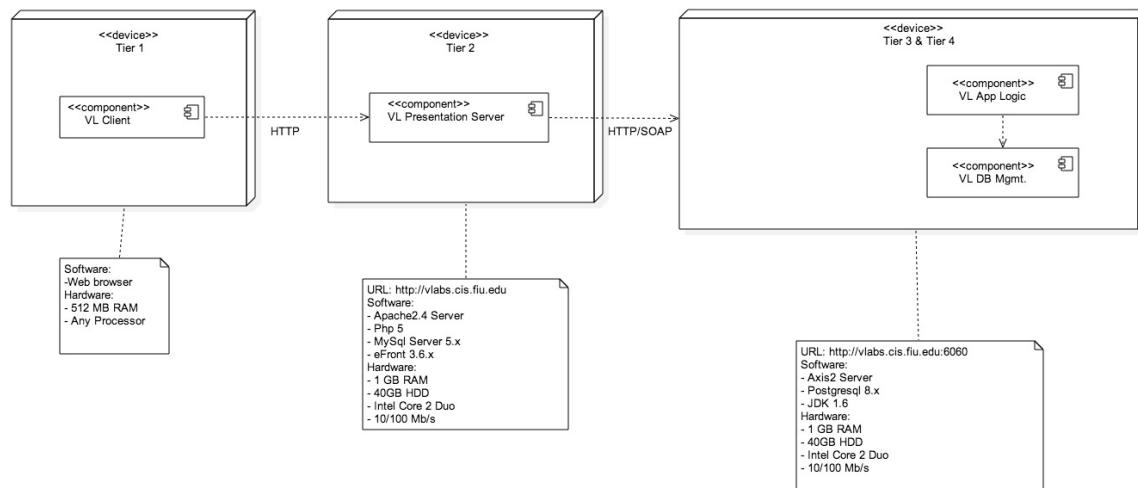


Figure D-4: Object Diagram with hardware/software mapping

9.5 Appendix E – Dynamic UML Diagrams

Virtual Labs

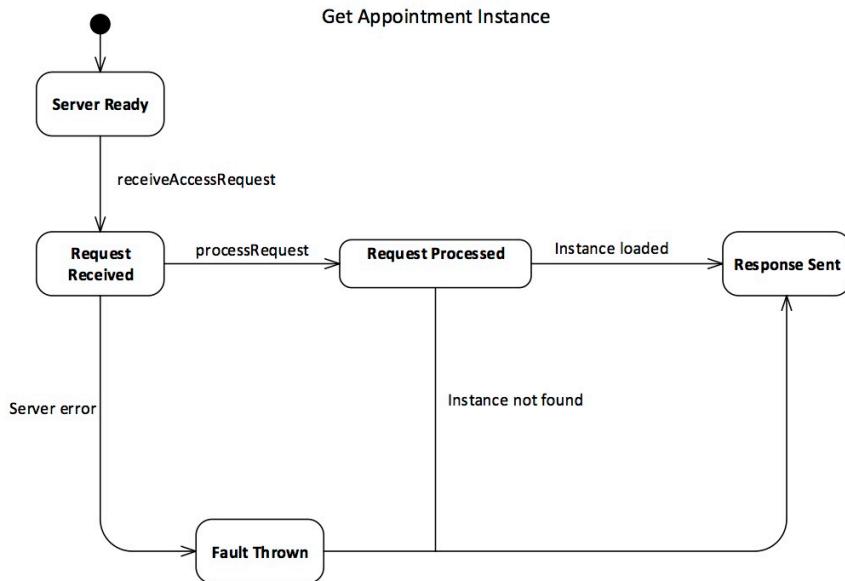


Figure E-1: State Diagram for loading a student's appointment instance

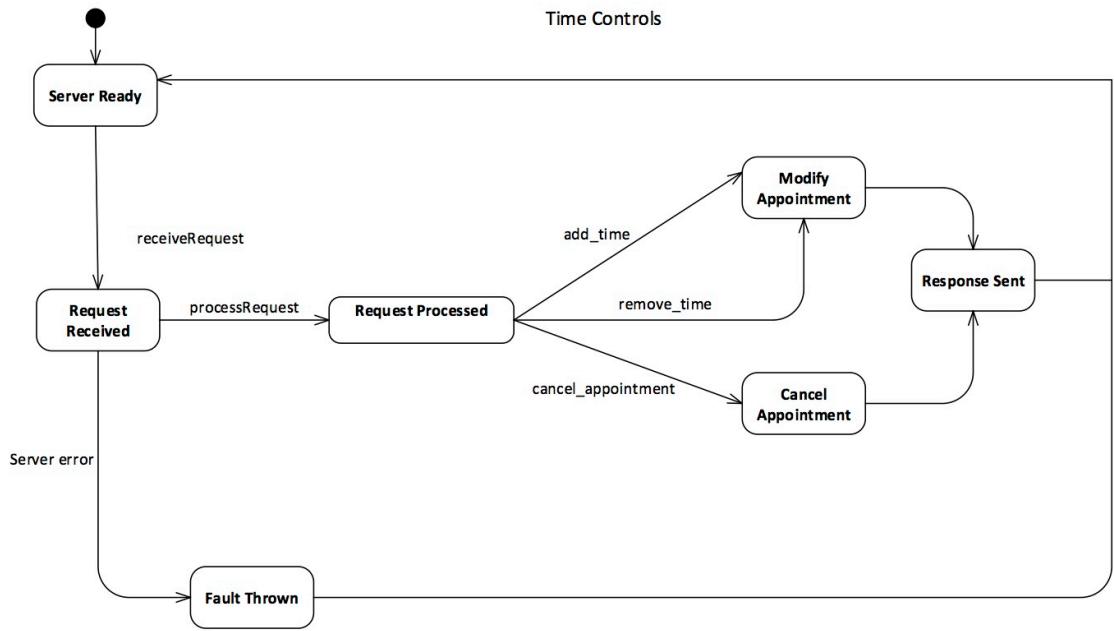


Figure E-2: State diagram for modifying a user appointment

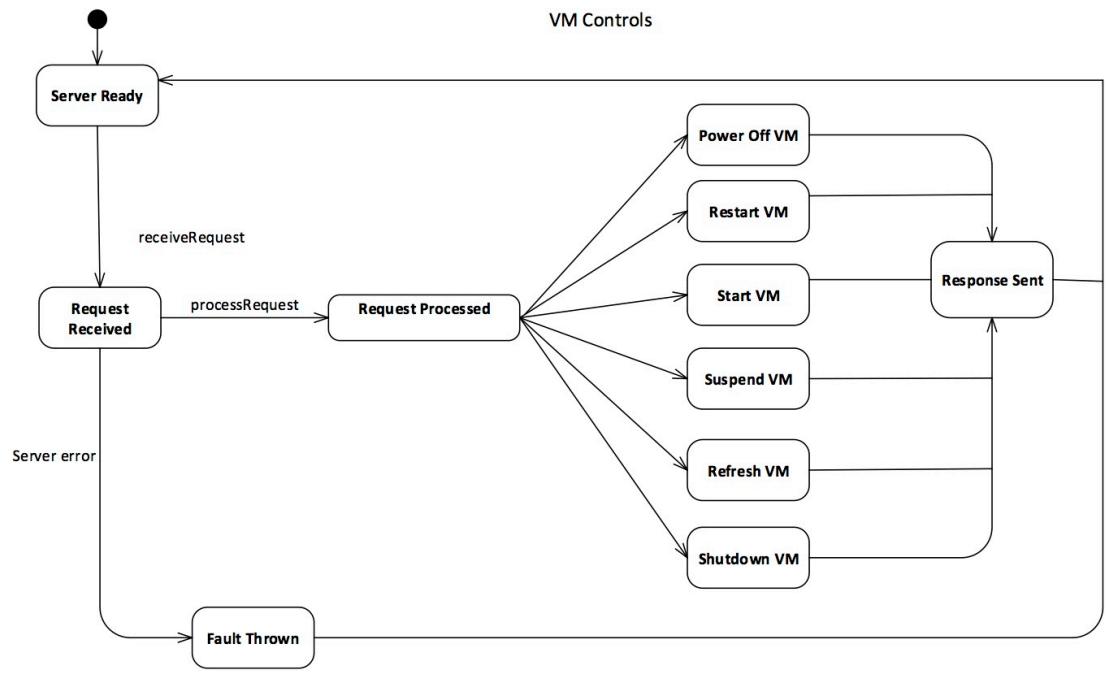


Figure E-3: State Diagram for altering the state of a virtual machine using the vmcontrols on the navbar

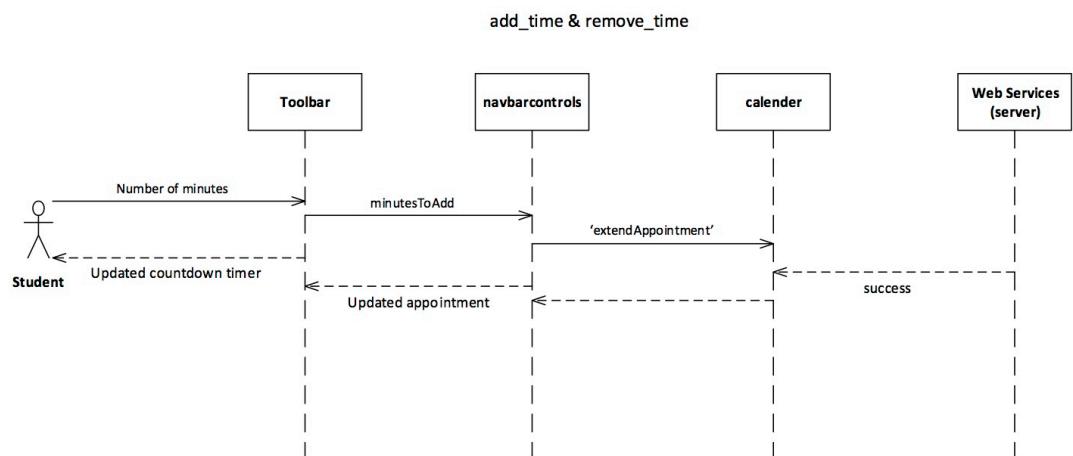


Figure E-4: Sequence Diagram for modifying a student appointment by adding or removing time

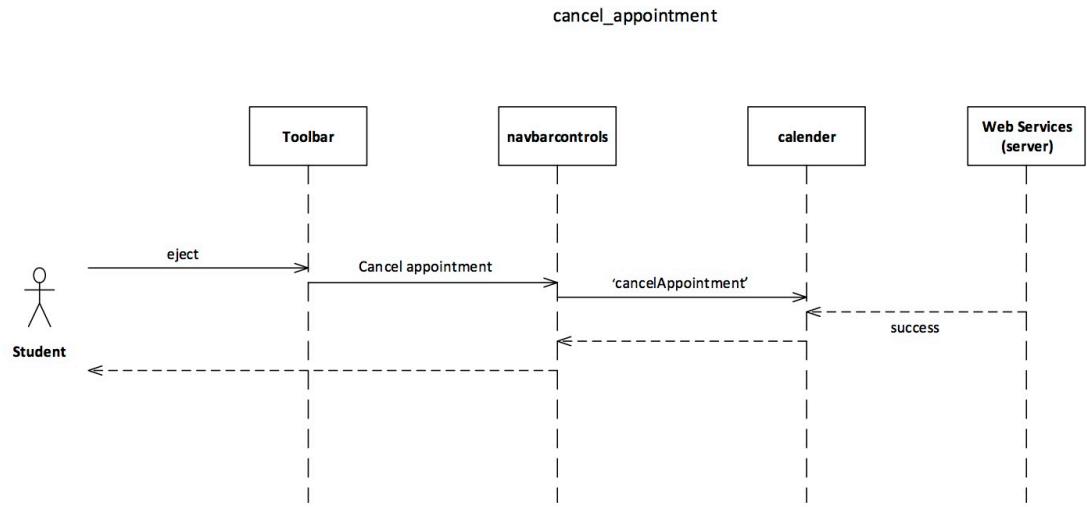


Figure E-5: Sequence Diagram for cancelling a student appointment via the Eject button

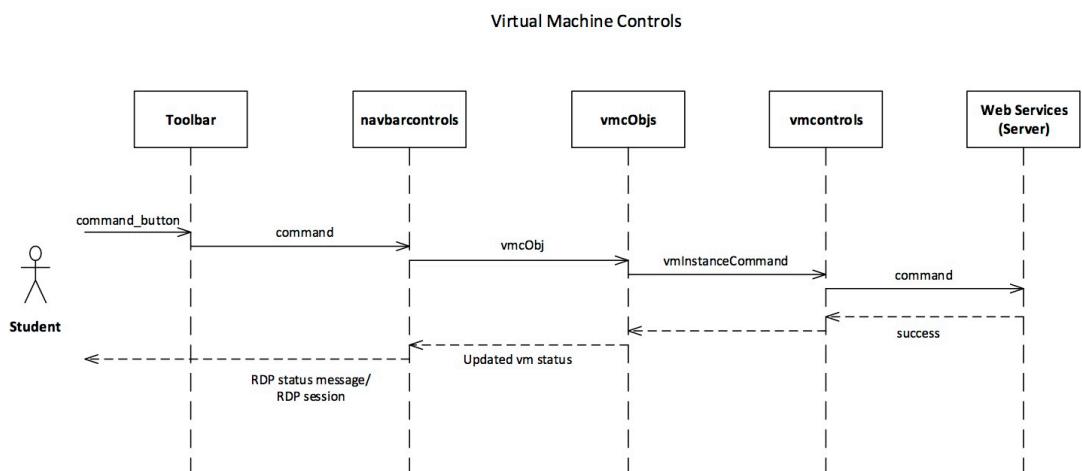


Figure E-6: Sequence Diagram for altering the state of the virtual machine using the vm controls in the toolbar.

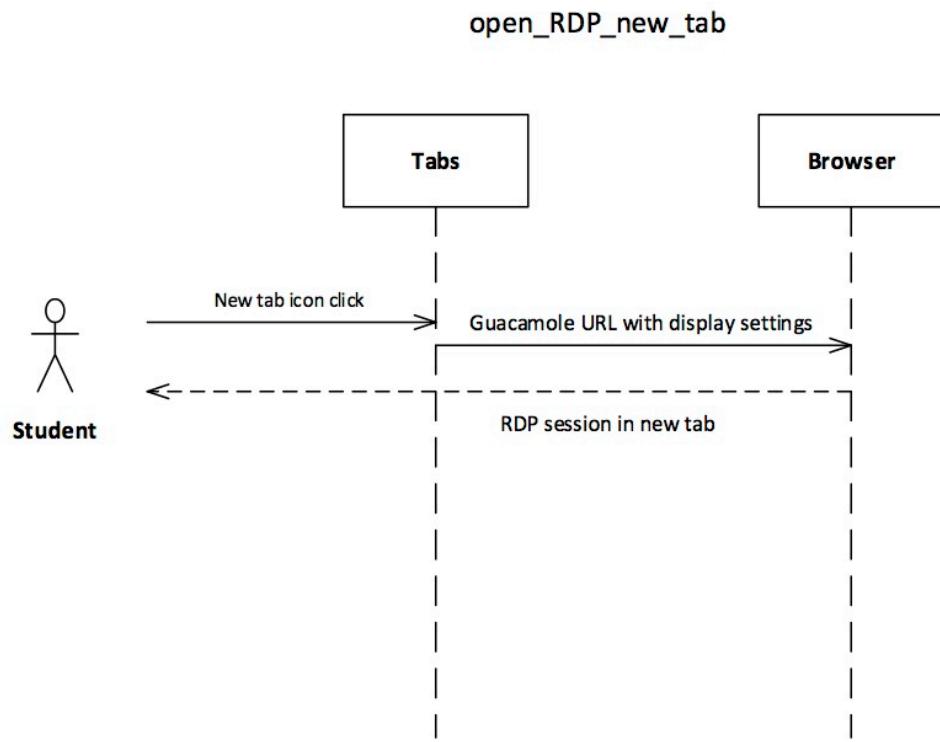


Figure E-7: Sequence Diagram for opening the RDP session in a new tab

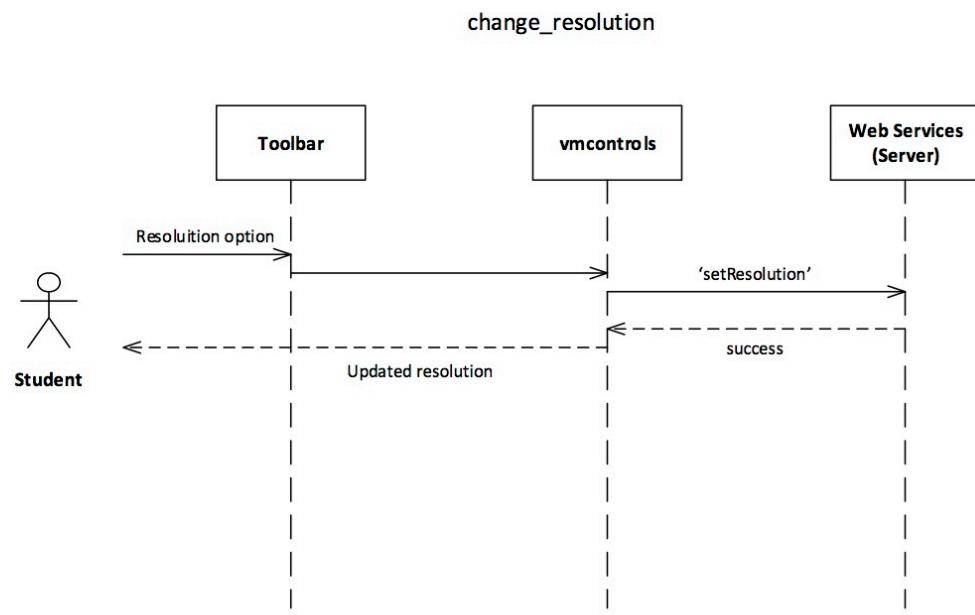


Figure E-8: Sequence Diagram for changing the color depth of the RDP session via the options on the toolbar

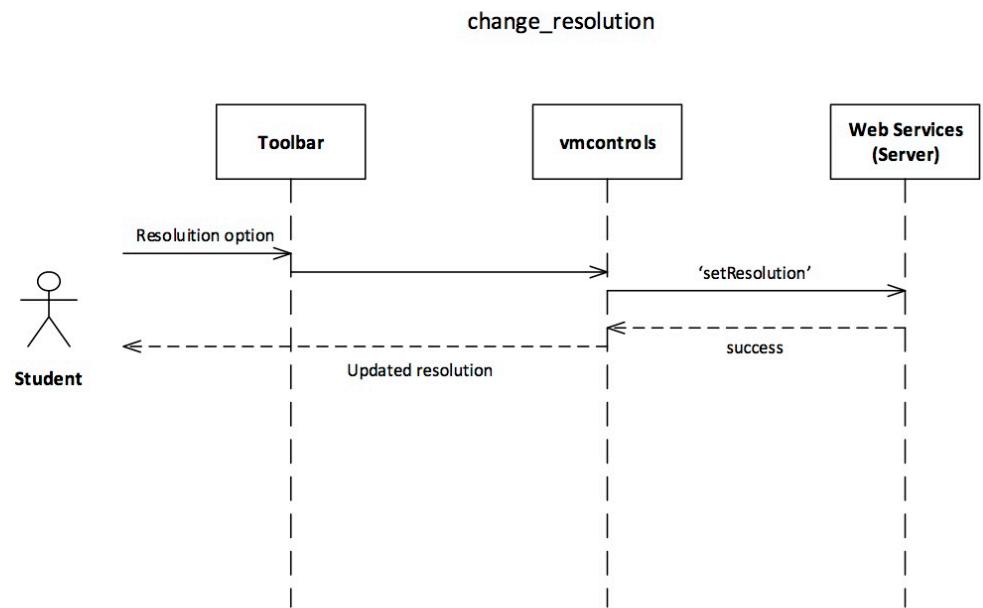


Figure E-8: Sequence Diagram for changing the resolution of the RDP session via the options on the toolbar

vLabsAdmin

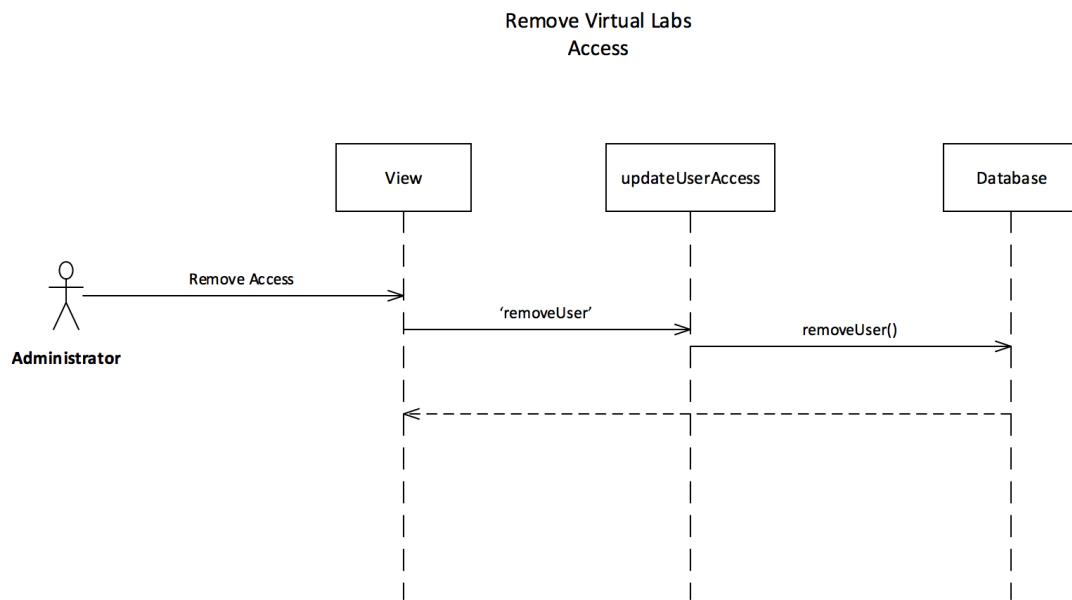
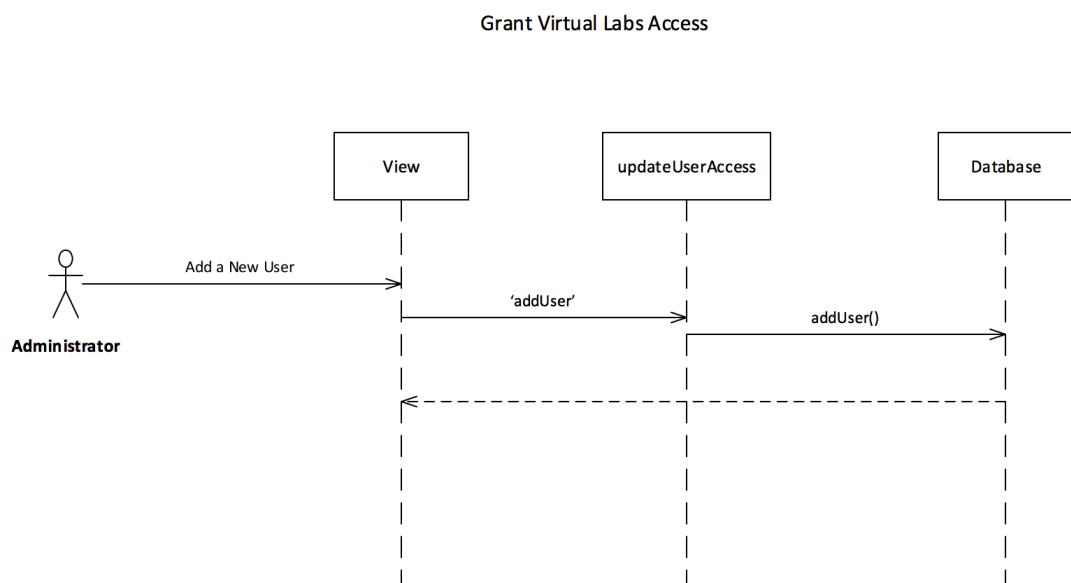


Figure E-9: Sequence Diagram for revoking Virtual Labs access from a user



9.6 Appendix F – Diary of Meetings

Date: 5/20/2015

Attendees: All

Start time: 8:35

End time: 9:02

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Researched URL generator for webNetwork
 - Looked into eFront modules
- What is planned to be done until the next scrum meeting?
 - Review PHP
 - Will look into creating user interface for webNetwork tiles
- What are the hurdles?
 - N/A

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - Looked into WebNetwork docs
 - Also the possible capabilities of WebNetwork
- What is planned to be done until the next scrum meeting?
 - Read about Efront module creation
 - Attempt to create a module that can connect to WebNetwork
 - Look into cookies and how to capture user credentials
- What are the hurdles?
 - N/A

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Studied eFront documentation / modules
 - Reviewed PHP
- What is planned to be done until the next scrum meeting?
 - Plan to learn PHP
 - implement a module that does something
 - Will try to create a module that interacts with WebNetworks
- What are the hurdles?
 - None

Fourth student: Juan

- What was done since the last scrum meeting?
 - Scan through webNetwork Documentation
 - Found Java API
- What is planned to be done until the next scrum meeting?
 - Study the Java API, experiment with implementation of the API.
- What are the hurdles?
 - None

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Tried to do the SSO in different ways
 - Tried using eFront XML API
- What is planned to be done until the next scrum meeting?
 - Retry the SSO
 - Install webNetwork and webRDP
- What are the hurdles?
 - None

Date: 5/21/2015

Attendees: All

Start time: 8:30

End time: 9:02

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Researched PHP
 - Sketched out tile layout for webNetwork
- What is planned to be done until the next scrum meeting?
 - Will look into creating user interface with eFront themes
 - Also look into other web frameworks
- What are the hurdles?
 - N/A

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - Looked into to embed WebNetwork into eFront
- What is planned to be done until the next scrum meeting?
 - Delve into PHP
 - Figure out how to manipulate webNetwork
- What are the hurdles?
 - N/A

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Reading about eFront module
 - Embedded page into eFront
 - resize window
- What is planned to be done until the next scrum meeting?
 -
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Reading efront and Webnetwork
 - Getting familiar with efront XML API
- What is planned to be done until the next scrum meeting?
 - Work on efront XML API
 - Research on WebRDP technologies
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Looked into SSO for webNetwork
- What is planned to be done until the next scrum meeting?
 - Look for different HTML based RDP solutions
- What are the hurdles?
 -

Date: 5/22/2015

Attendees: All

Start time: 8:30

End time: 9:02

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Worked on eFront modules
 - Studied on SMARTY
- What is planned to be done until the next scrum meeting?

- Keep studying SMARTY
 - Work with Trung to create a demo eFront module
- What are the hurdles?
 - N/A

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - Found HTML based RDP -Guacamole
 - open source and free
 - Many API's
- What is planned to be done until the next scrum meeting?
 - Setup and test out Guacamole
 - Continue to look up more alternatives
 - Create feasibility report
 - look into scalability and performance
- What are the hurdles?
 - N/A

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Researching about Guacamole
 -
- What is planned to be done until the next scrum meeting?
 - Setup and test out Guacamole
 - Continue to look up more alternatives
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Researched on Guacamole html 5 RDP alternative.
 -
- What is planned to be done until the next scrum meeting?
 - Will continue to research more on Guacamole, get it installed and do some base line testing along with Daniel and Johann.
 - Will continue to look for other alternatives to Guacamole.
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Spent time trying to understand the code done by Prof. Sadjadi

- - What is planned to be done until the next scrum meeting?
 -
 -
 - What are the hurdles?
 -

Date: 5/26/2015

Attendees: All

Start time: 8:30

End time: 9:02

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Trying to get to an eFront module / smarty
 - one with jquery is set up
 - bootstrap one is done
- What is planned to be done until the next scrum meeting?
 - look into alternative UI designs with Trung
 - consistency with eFront themes
- What are the hurdles?

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - Got Guacamole up and running
 - Looked into Ericom Access Now - not free
 - tested. high performance/scalability
- What is planned to be done until the next scrum meeting?
 - Get started on looking into KVM
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Got Guacamole up and running
- What is planned to be done until the next scrum meeting?
 - Work with Daniel and look into KVM
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Guacamole was up and running, it has basically all we were looking for.
- What is planned to be done until the next scrum meeting?
 - Will have the Guacamole server again up and running for tomorrow.
- What are the hurdles?

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Go over current vLabs Code
- What is planned to be done until the next scrum meeting?
 -
- What are the hurdles?
 -

Date: 5/27/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Worked with JQueryUI to create some sample modules
- What is planned to be done until the next scrum meeting?
 - continue with this and make a module using tabs
- What are the hurdles?

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - Studied KVM with Johann
 - found Kimchi
- What is planned to be done until the next scrum meeting?
 - Continue studying KVM - how to manage through java
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Studied KVM with Daniel
- What is planned to be done until the next scrum meeting?
 - send an email to John Flynn as a follow up to KVM email
 - Continue studying KVM - how to manage through java

- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Studied Guacamole documentation
 - Set up another server to host Guacamole
- What is planned to be done until the next scrum meeting?
 - Figure out what specs will be needed to host this on a VM at FIU
 - Come up with a way to do a performance test of 100 vms connecting to Guacamole.
- What are the hurdles?
 - None

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Studied JQuery
- What is planned to be done until the next scrum meeting?
 - Continue catchup with jQuery and web development tools
- What are the hurdles

Date: 5/28/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - created module that utilizes tabs instead of dropdowns
- What is planned to be done until the next scrum meeting?
 - fix color theme in module
- What are the hurdles?

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - Studied up more on KVM
 - explored libvirt which is a virtualization module
- What is planned to be done until the next scrum meeting?
 -
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - About to install KVM in his machine
 - He learned there may be a java interface for libvirt
- What is planned to be done until the next scrum meeting?
 - Install KVM
 - Experiment with different means compatible with Java to control the creation, start, stop of VMs. Explore the libvirt java binding apis, command line, python. Demonstrate the different methods and come up with pros/cons of each to determine which is best for the vlabs project.
 - Find what are the different ways to manage KVM from PHP.
 - Create VMs the same way as in vlabs.
 - Investigate if images from VMWare can be used in KVM.
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Looked into the scalability of Guacamole
 - there really is no limit on the software side but on server capacity
- What is planned to be done until the next scrum meeting?
 - take a look into some wedRDP server specs
 - set up guacamole on vlabs-dev
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - began experimenting with jQueryUI
- What is planned to be done until the next scrum meeting?
 -
- What are the hurdles?
 -

Date: 6/1/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Worked on resizing the module

- What is planned to be done until the next scrum meeting?
 - Look into iframe issues
- What are the hurdles?
 - Keyboard problems

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - Studying python scripts
- What is planned to be done until the next scrum meeting?
 - Work on the XML needed for virsh
- What are the hurdles?
 - implementation with virsh

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Installed KVM and setup 2 vms. Worked on setting up the network config to allow remote access to the vms.
- What is planned to be done until the next scrum meeting?
 - Begin looking into the shoppingcart module
- What are the hurdles?
 - Had problems setting up a dual boot configuration with Ubuntu on existing windows installations. Spent all Friday and Saturday resolving this issue.

Fourth student: Juan

- What was done since the last scrum meeting?
 - Spoke with Eric about conducting performance tests
- What is planned to be done until the next scrum meeting?
 - keep preparing for the performance tests
 - Will speak to Eric to get acc
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Looked into the policy/quota system
- What is planned to be done until the next scrum meeting?
 - Keep at the implementation of the policy/quota system in eFront
- What are the hurdles?
 -

Date: 6/2/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Fixing Iframe issues
- What is planned to be done until the next scrum meeting?
 - Look into the full screen and new tab idea
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - Tried to get VM running on vc12
 - needed to create XML
- What is planned to be done until the next scrum meeting?
 -
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - catch up
 - get ** module working
 - Try to import php view? into eFront module
- What is planned to be done until the next scrum meeting?
 -
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 -
- What is planned to be done until the next scrum meeting?
 -
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Researched moodle modules
- What is planned to be done until the next scrum meeting?
 -

- What are the hurdles?

Date: 6/3/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Spent some time looking over jQuery
 - Got new tab to work
- What is planned to be done until the next scrum meeting?
 - Look into fullscreen idea and one button new browser idea
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - set up all vms on KVM
- What is planned to be done until the next scrum meeting?
 - look into snapshots
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - trying to get efront module working
 - success! :)
- What is planned to be done until the next scrum meeting?
 - continue working on module
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - working on python script to collect guacamole logs
- What is planned to be done until the next scrum meeting?
 -
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?

- imported moodle code but still have issues
 - began looking into themes
- What is planned to be done until the next scrum meeting?
 - continue working on module - focus on DB
- What are the hurdles?

Date: 6/4/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Finished tabs
- What is planned to be done until the next scrum meeting?
 - look into rest
 - look into fullscreen option
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - went over the python scripts with the professor
 - got the snapshots to work
- What is planned to be done until the next scrum meeting?
 - work with the scripts
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - catching up with web development languages
 - playing around with db access with php and met with the prof
- What is planned to be done until the next scrum meeting?
 - look into how efront uses php to access db
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - looked into how to create the script for the performance test
- What is planned to be done until the next scrum meeting?
 - complete the python script that reads the system log

- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - looked into the db implementation on efront
- What is planned to be done until the next scrum meeting?
 - talk to the professor about it and issues occurring
- What are the hurdles?

Date: 6/5/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Reviewed current implementation code and rest
- What is planned to be done until the next scrum meeting?
 - begin merging of efront module code
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - trying to get the routers up and running
 - converted one
- What is planned to be done until the next scrum meeting?
 - study vmnat
- What are the hurdles?
 - ping issues

Third student: Johann Henao

- What was done since the last scrum meeting?
 - created a table in the eFront database on install
 - drop on uninstall and alter on upgrade
- What is planned to be done until the next scrum meeting?
 - continue working with eFront dbs
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?

- Completed script for performance test
- What is planned to be done until the next scrum meeting?
 - Take the data from script and chart it
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Also worked with the eFront database and table create
- What is planned to be done until the next scrum meeting?
 - catch up
- What are the hurdles?

Date: 6/8/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Worked with Dr. Sadjadi on a new module vLabsAdmin
 - Began looking into the eFront database functions
- What is planned to be done until the next scrum meeting?
 - Continue working with those functions to implement a user access table
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - worked on the python start_vm script
- What is planned to be done until the next scrum meeting?
 - continue to work on the stop_vm script
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Researched smarty and Database wrapper functions of eFront
- What is planned to be done until the next scrum meeting?
 - Continue working on implementing database functionality
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Executed the performance test
 - Started working on a new story “Accept REST calls...”
 - Along with Dr. Sadjadi took a look at the Guacamole web app to see what needs to be changed to implement accepting REST calls.
- What is planned to be done until the next scrum meeting?
 - Research / work on figure out what needs to be done to accept rest calls, using the “guacamole-example” to try to figure it out.
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Implement add policy.
- What is planned to be done until the next scrum meeting?
 - Work on implementing insert into tables for eFront
- What are the hurdles?

Date: 6/9/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Working on administrator module
- What is planned to be done until the next scrum meeting?
 - Continue working on administrator module
- What are the hurdles?
 - Trouble with e-front's built in functions specifically how to call them from a seperate php file

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - stop_vm.py comepleted
- What is planned to be done until the next scrum meeting?
 - start_ve.py
- What are the hurdles?
 - What specific directories start_ve.py uses

Third student: Johann Henao

- What was done since the last scrum meeting?
 - worked on creating tables in eFront database
- What is planned to be done until the next scrum meeting?
 - finish the table creation and work on UI
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Read on java servlets
 - Read Guacamole documentation about creating an application
 - Read about REST
 - Cleaned my Windows computer to work in it from now on.
- What is planned to be done until the next scrum meeting?
 - Try to figure out where in the Guacamole web app I need to work to implement REST calls
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Looked into selenium
 - attempted to insert into the database
- What is planned to be done until the next scrum meeting?
 - Continue using selenium
 -
- What are the hurdles?

Date: 6/10/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Worked on making module have an eFront look and feel
 - Access the database
- What is planned to be done until the next scrum meeting?
 - Look into themes
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - worked on start_ve script
- What is planned to be done until the next scrum meeting?
 - continue working on start_ve
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - created the tables needed for the shopping cart
- What is planned to be done until the next scrum meeting?
 - add in the tables and then focus on functionality
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - looked into rest calls and how to use them in guacamole
- What is planned to be done until the next scrum meeting?
 - meet with the prof and implement the guacamole app
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - figured out how to work with the efront db
- What is planned to be done until the next scrum meeting?
 -
- What are the hurdles?

Date: 6/11/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Trying to make theme changes
- What is planned to be done until the next scrum meeting?
 - Continue working on theme changes
- What are the hurdles?

○

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - worked on the start_ve.py
 - provisioner2.py
 - start_ve2.py
- What is planned to be done until the next scrum meeting?
 - work on stop_ve.py
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Scripted the functions to import the data
- What is planned to be done until the next scrum meeting?
 - working on the functionality
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - worked with the professor on the guacamole app
- What is planned to be done until the next scrum meeting?
 - continue doing so
- What are the hurdles?
 - not sure where to start

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Implemented modify and delete policy
- What is planned to be done until the next scrum meeting?
 - complete the addpolicy with the correct id
- What are the hurdles?

Date: 6/15/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Completed current implementation of theme changes
- What is planned to be done until the next scrum meeting?
 - Look into finding a better way to transition between themes
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - worked on the stop_ve.py
- What is planned to be done until the next scrum meeting?
 - begin working on networking
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - worked with JSON
- What is planned to be done until the next scrum meeting?
 - Continue working on functionality of other tabs in module
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - documented the guacamole-performance-test.py
 - worked on user gpt manual
- What is planned to be done until the next scrum meeting?
 - work on forwarding REST requests to VMs
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - fixed the add policy
 - started on credit types
- What is planned to be done until the next scrum meeting?
 - Continue work on the credit types
- What are the hurdles?

Date: 6/16/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Fixed the theme changes
- What is planned to be done until the next scrum meeting?
 - Fix the theme fonts
 - Start work on vLabs admin module remove/add
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Met with the professor on the networking of the kvm
- What is planned to be done until the next scrum meeting?
 - work on vmnat.sh
- What are the hurdles?
 - not sure where to start

Third student: Johann Henao

- What was done since the last scrum meeting?
 - worked on fixing reference errors
- What is planned to be done until the next scrum meeting?
 - continue working on tab functionality and fixing issues
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Going through the Guacamole code to emulate the opening of sessions
- What is planned to be done until the next scrum meeting?
 - Keep on working on trying to learn how to forward the REST calls
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Partially completed add/modify check policy
- What is planned to be done until the next scrum meeting?
 - complete the add/modify check policy
 - attempt to complete delete check policy
- What are the hurdles?

Date: 6/17/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Implemented the remove access of vLabsAdmin
 - Worked with the professor on git
- What is planned to be done until the next scrum meeting?
 - Continue with that and add access
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Worked with the professor on VM settings
- What is planned to be done until the next scrum meeting?
 - continue working on the networking
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Successfully grabbed data from tables
 - Work with trung on table data
- What is planned to be done until the next scrum meeting?
 - continue working with Trung and ajax on store manager
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - continued studying the guacamole code to figure out where to implement REST
- What is planned to be done until the next scrum meeting?
 - Continue working with that code
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Finished delete and fixed add/modify
- What is planned to be done until the next scrum meeting?
 - Speak with the professor about database issues
- What are the hurdles?

Date: 6/18/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Worked on grant access of the vLabsAdmin module
- What is planned to be done until the next scrum meeting?
 - Finish implementing this aspect
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Successfully contributed to git
- What is planned to be done until the next scrum meeting?
 - Work on the networking
- What are the hurdles?
 - Problems with multiple networks

Third student: Johann Henao

- What was done since the last scrum meeting?
 - working on getting data to the rest of the tabs
- What is planned to be done until the next scrum meeting?
 - Troubleshooting these jQuery dependancy issues
- What are the hurdles?
 - a weird jQuery errors

Fourth student: Juan

- What was done since the last scrum meeting?
 - Continued going through the Guacamole code
- What is planned to be done until the next scrum meeting?
 - Continue going through the Guacamole code
- What are the hurdles?
 - Have not figured out how the sessions get constructed

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Worked on implementing database insert with auto increment
 - add db functions to make the calls to the database
- What is planned to be done until the next scrum meeting?
 - Implement database changes and move on to next story
- What are the hurdles?

Date: 6/19/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Implemented Add User in vLabsAdmin
- What is planned to be done until the next scrum meeting?
 - finish the user exists check
 - begin creating the control nav bar in vLabs
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Created networks
- What is planned to be done until the next scrum meeting?
 - Continue working with these networks and meet with the professor
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Get the data in all the tabs and fixed errors
 - Began work on 'details'
- What is planned to be done until the next scrum meeting?
 - Implement it as an eFront module
 - Work with Crystal to implement the theme changes
 - Work with Trung on database requirements with regard to RNT
 - Ajax calls
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Worked to figure out where in the Guacamole code to implement REST
 - Found a plugin to handle establishment of connections on the fly
- What is planned to be done until the next scrum meeting?
 - Investigate further about this plugin
- What are the hurdles?

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Had to resolve many database issues with lack of primary fields
 - Figured out how to bypass the space requirement
- What is planned to be done until the next scrum meeting?
 - Implement keys to DB, and add them to install / uninstall
- What are the hurdles?

Date: 6/22/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Fixed bug, worked on RDP tags
 - Added toolbar to vLabs module
- What is planned to be done until the next scrum meeting?
 - Begin implementing functionality to buttons
 - Access database for information
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - Get the RDP sessions to work on vc12
 - made a static IP in router 1
- What is planned to be done until the next scrum meeting?
 - Continue working on his routing issue
- What are the hurdles?
 - not sure if it's routing or not

Third student: Johann Henao

- What was done since the last scrum meeting?

- began mapping db calls
- What is planned to be done until the next scrum meeting?
 - meet with Trung and Crystal
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Looked into the issues with establishing connections
- What is planned to be done until the next scrum meeting?
 - Continue working on it and meet with the professor
- What are the hurdles?

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - importing the database
 - added constraints and began looking into ajax
- What is planned to be done until the next scrum meeting?
 - Add more to the database
- What are the hurdles?

Date: 6/23/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Began combing through the function calls of the moodle module
- What is planned to be done until the next scrum meeting?
 - start working with my javascript to bridge my module with the existing php files
 - Meet with Trung and Johann to talk about themes
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - fixed the forwarding
- What is planned to be done until the next scrum meeting?
 - optimize python code
- What are the hurdles?

○

Third student: Johann Henao

- What was done since the last scrum meeting?
 - traced the database and SOAP calls
 - began retrofitting these calls with efront and php
- What is planned to be done until the next scrum meeting?
 - Continue working on this and go back to the SOAP rather than ajax
 - Meet with Crystal to talk about themes
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Going through Guacamole and hmac_auth code to fix/update the plugin.
- What is planned to be done until the next scrum meeting?
 - Continue trying to fix the hmac_auth plugin
- What are the hurdles?

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - finished ajax call and sent johann the info but reverting back to SOAP
 - implementing the second view based on user privilege
- What is planned to be done until the next scrum meeting?
 - Meet with Crystal to talk about themes
 - Continue implementing the second part of the view
- What are the hurdles?

Date: 6/24/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Met with Trung and Johann about themes
 - Worked with Juan on Guacamole code
- What is planned to be done until the next scrum meeting?
 - Meet with the professor to assist in moving forward

- What are the hurdles?
 - Some confusion in the integration of the current Javascript with my module

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - vc12 RDP is working for KVM
- What is planned to be done until the next scrum meeting?
 - Copy the files from vc9, once in vc12, go in vmware and remove snapshots, run conversion, make a kvm snapshot, clean up garbage and see if startve works
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - worked with SOAP calls
- What is planned to be done until the next scrum meeting?
 - continue working on functionality and with those calls
 - Get the module working with the themes and show installable\uninstallable by Friday
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Get the information from the URL and find where it falls in place in the code
- What is planned to be done until the next scrum meeting?
 - Continue looking into hashing and the authentication
- What are the hurdles?
 - Not sure where exactly in the code the authentication happens

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Switching from one view(admin) to another view(professor)
- What is planned to be done until the next scrum meeting?
 - Work on switching back the SOAP calls
 - Finish Quota System by Friday
- What are the hurdles?

Date: 6/25/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Met with the professor and got back on track
- What is planned to be done until the next scrum meeting?
 - Get the moodle vLabs working in eFront by Monday night
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - moved the gold images from vc9 to vc12
- What is planned to be done until the next scrum meeting?
 - Need to go over these images with the professor to discuss changes
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Worked on getting the userid and the role from eFront
 - Began work on the themes
- What is planned to be done until the next scrum meeting?
 - Finish the themes
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Read up more on the guac plugin
- What is planned to be done until the next scrum meeting?
 - Take a look into the client JS code
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - reverted code back the original SOAP calls
- What is planned to done until the next scrum meeting?
 - Finish the themes

- What are the hurdles?
 -

Date: 6/26/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What to be done for next sprint:
 - create the user story for migrating the moodle vLabs module into eFront
 - Goal for this sprint: to get the current version of vLabs running correctly in eFront and begin applying the fixes and changes discovered through development of the other module
 - For the jQuery resources: Keep a copy of the specific version under Code/frameworks

Second student: Daniel Gonzalez

- What to be done for next sprint:
 - create the user story for finishing everything in VC12
 - create a user story for the specific conversion schedule
 - make sure all the scripts have comments
 - possibly write a script to convert all the images in vc0-vc11
 - Goal for this sprint: convert vc0-vc11 to KVM
 - Work on documenting all my notes

Third student: Johann Henao

- What to be done for next sprint:
 - Create a user story to automate the process of dumping and importing the content of the db for his module
 - when uninstall, all the data is dumped into a dump file before the tables are dropped - this dump file should be kept in the module or a specific location on the target machine
 - for install, all the data is imported after the tables are recreated
 - Share results of this with Trung and Crystal
 - Create a user story to fix db XML references
 - Create a defect story to fix the theme issue

Fourth student: Juan

- What to be done for next sprint:
 - Focus on REST and Guacamole

Fifth student: Trung Ngo

- What to be done for next sprint:
 - Create defect story for misalignment issue using efront themes.
 - Fully finish quota system and test all functionality of module. Improve on reports user interface and fix bugs.

Date: 6/29/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Getting moodle module to work in eFront
- What is planned to be done until the next scrum meeting?
 - Figure out which parts to take from the old module to upgrade current module
 - get some functionality integrated by wednesday
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Cleaned up vc12; like the ping issues
- What is planned to be done until the next scrum meeting?
 - Clean up the python code
 - fix the IP issues and run a test to see if we can run 8 vLabs
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Got themes to work with his module
 - Looked into php to execute command line
- What is planned to be done until the next scrum meeting?
 - Check if the user wants to download the data on delete and if the user wants to import the data on install, on upgrade as well
 - Finish shopping cart by Friday
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Learning servlets to understand guacamole code.
- What is planned to be done until the next scrum meeting?
 - Get a simple php file to grab hardcoded url parameters passed to it
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - fixed the drop down menus
 - looked into the reports tab
- What is planned to be done until the next scrum meeting?
 - Find the issues with the reports tab
 - Fix the image issue
- What are the hurdles?
 -

Date: 6/30/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Spent time tracing buttons in nav-bar to see what pieces of code to grab and integrate
- What is planned to be done until the next scrum meeting?
 - Continue on this and try to get some functionality working by tomorrow
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Fixed the IP's and the services in the gold images
 - set up 8 virtual labs
 - A lot of slowdown
- What is planned to be done until the next scrum meeting?
 - Make sure that the scripts run under portal
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - get referential constraints to work
- What is planned to be done until the next scrum meeting?
 - Finalize the referential constraints
 - work on the data dump on install/uninstall
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Decided to create own module to authenticate the user
- What is planned to be done until the next scrum meeting?
 - Continue and try to have full functionality by tomorrow night
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Fixed the visual glitches
- What is planned to be done until the next scrum meeting?
 - Continue debugging and testing the report system
- What are the hurdles?
 -

Date: 7/1/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Traced the function calls for the appointment buttons
 - Got them to work
 - Still using old soap calls and some hardcoded info
- What is planned to be done until the next scrum meeting?
 - Begin tracing the functions of the vm buttons
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?

- worked with virsh and getting the system to work with portal
- What is planned to be done until the next scrum meeting and onwards?
 - shell commands should not need any interaction with user
 - sudo asks for password so we should either bypass it or something
 - Investigate what it takes to upgrade vc11 for example.
 - Have an estimate for how long it will be down to see if we need a maintenance day or what
 - Convert all existing vmware to KVM and copy back the new gold images
 - estimate of how much space needed for this
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Finished working with the referential constraints
 - made a script to delete those records that do not have referential data
- What is planned to be done until the next scrum meeting?
 - testing the dump
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - spent a lot of time coding and debugging
- What is planned to be done until the next scrum meeting?
 - overwrite the usercontext function and finish by tomorrow
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Done with the policies
- What is planned to be done until the next scrum meeting?
 - start on the scheduler
 - do more testing
- What are the hurdles?

Date: 7/2/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Traced calls for the vm control buttons still needs some work
- What is planned to be done until the next scrum meeting?
 - Continue to work on the vm control buttons and get them done by Sunday
 - Aim for the module to be done by Monday
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Fixed the sudo issue
- What is planned to be done until the next scrum meeting?
 - Write a script to convert images for vc11.
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 -
- What is planned to be done until the next scrum meeting?
 -
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Got partial functionality.
 - Can connect but if try open a new connection in the same tab it breaks
- What is planned to be done until the next scrum meeting?
 - Continue to fix this issue and get it fully working
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Found scripts online to be added to the modules
- What is planned to be done until the next scrum meeting?
 - add online scripts
 - look into scheduler
- What are the hurdles?

○

Date: 7/3/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Continued tracing the vm buttons however switched focus to loading the module when scheduled and if not scheduled, schedule the user
 - Took tons of chunks of code to use, just started debugging to see what was missed or broken
 - not sure what to do about all the certtest code, they're commented out for right now.
- What is planned to be done until the next scrum meeting?
 - Continue to debug and work with the professor on Sunday
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Wrote the script to convert the vmware to kvm
 - still needs testing
- What is planned to be done until the next scrum meeting?
 - Begin on the documentation of the scripts and other code
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Met with professor
 - fixed development environment
- What is planned to be done until the next scrum meeting?
 - finalize the shopping cart module, use test cases etc
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Have been working on fixing the issue with the connections breaking if a new connection is set over the same tab.
- What is planned to be done until the next scrum meeting?

- Continue working to fix this for tonight and over the weekend.
 - If I fix the issue, I will start commenting and optimizing code.
- What are the hurdles?
 - None.

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Worked on implementing the online scripts
 - Started working on scheduler
 - got interface to appear
- What is planned to be done until the next scrum meeting?
 - Start debugging scheduler to begin migration
- What are the hurdles?

Date: 7/6/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Got the module to read existing appointments
 - and schedule an appointment when not scheduled
- What is planned to be done until the next scrum meeting?
 - Continue getting the VM buttons to work
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - wrote documentation on converting vc to kvm
 - also for bypassing the password for sudo
 - also for applying network settings
- What is planned to be done until the next scrum meeting?
 - see if we can modify scripts to use the python api instead of cmdline
- What are the hurdles?

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Created user and defect stories and configured development env
 - worked on student role logic and on order and transaction actions

- What is planned to be done until the next scrum meeting?
 - continue working on this module for friday
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Worked on the new connection, same tab issue, fixed.
- What is planned to be done until the next scrum meeting?
 - Finish this url story
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Worked on full calendar
- What is planned to be done until the next scrum meeting?
 - continue working on full calendar
- What are the hurdles?

GIT STUFF:

-- to deal with the merge conflicts:

1. commit your changes
2. switch to development and pull any changes
3. switch back to story branch
4. git rebase development
5. switch back to development
6. git rebase storyxxx
7. push!

*ask me if you have q's! -Crystal :)

Date: 7/7/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?

- Continued grabbing/altering chunks of code needed for the vm control buttons
 - sort of working on the url parameter passing at the same time
- What is planned to be done until the next scrum meeting?
 - Hopefully finish properly setting up the calls for these buttons
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Looked through the python api
 - made a test script to see what it could do
- What is planned to be done until the next scrum meeting?
 - start working on using this api in the scripts already written to make it more resilient
- What are the hurdles?
 - the api doesn't allow easy creation of vm domain i.e. doesn't allow start vm

Third student: Johann Henao

- What was done since the last scrum meeting?
 - finished orders manager and almost done with store manager
- What is planned to be done until the next scrum meeting?
 - work on getting the tabs functional
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Still working on the URL building
- What is planned to be done until the next scrum meeting?
 - Continue looking into this issue
- What are the hurdles?
 - getting rid of the connection id - need to find out how to get one automatically

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Traced Scheduler logic and code
- What is planned to be done until the next scrum meeting?
 - Get the scheduler interface to work properly
- What are the hurdles?
 -

Date: 7/8/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

*Professor availability tomorrow: 9:30 to 2 pm and 4:30pm onwards

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - worked on button functionality and fixed misc bugs with soap calls
 - Made the change to pull jquery resources from online
- What is planned to be done until the next scrum meeting?
 - Work with Masoud to finish testing
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - implemented libvirt api into the scripts
- What is planned to be done until the next scrum meeting?
 - Work with the professor to create scripts for the RDP control buttons
 - Add in documentation in code
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Continued working on store manager
- What is planned to be done until the next scrum meeting?
 - Continue working on this module
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Still working on the URL issue
 - without the connection id, have to reconstruct the request manually
- What is planned to be done until the next scrum meeting?
 - Hopefully have it ready by tomorrow
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Managed to get all the tabs working
- What is planned to be done until the next scrum meeting?
 - Work with the professor to fix moodle dependencies
- What are the hurdles?
 -

Date: 7/9/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Worked on implementing the Guacamole URL and the res/color depth buttons
 - Fixed a bunch of smaller bugs and implemented a loading icon to pop up during appointment creation
- What is planned to be done until the next scrum meeting?
 - Prepare for sprint review
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - Met with the professor
 - Converted start/stop.py to use the libvirt api
- What is planned to be done until the next scrum meeting?
 - Prepare for sprint review
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Working on finalizing tabs
- What is planned to be done until the next scrum meeting?
 - Prepare for sprint review
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Finalized the URL structure for the parameters to be passed
 - Worked with git to fix the structure of the repo
- What is planned to be done until the next scrum meeting?
 - Prepare for sprint review
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Created a few tables and imported the relevant data
 - Began work on fixing old moodle functions
- What is planned to be done until the next scrum meeting?
 - Prepare for sprint review
- What are the hurdles?
 -

Date: 7/10/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What to be done for next sprint
 - Finalize vLabs Module
 - vm buttons, display parameters in url, other defects
 - Begin working on the CertTest module - should be similar to vLabs

Second student: Daniel Gonzalez

- What to be done for next sprint
 - Work on refresh script
 - Goal is to finish any remaining scripts like is_rdp_ready, run_vm_cmd, refresh_vm

Third student: Johann Henao

- What to be done for next sprint
 - Make sure that the quota store is fully finished and tested
 - The db management tab in vLabsAdmin
 - incorporates the quota store data and the other modules as well

Fourth student: Juan

- What to be done for next sprint
 - fully document and finish the implementation of the guacamole plug in
 - fully deploy the implementation to vLabs-dev and vLabs servers
 - Investigate how we can avoid misuse of guacamole server - security
 - short sessions, timeouts, and a way of using the id so that only our own vms can be serviced by guacamole

Fifth student: Trung Ngo

- What to be done for next sprint
 - Work with Johann and Professor Sadjadi on vLabs admin tabs
 - Finish scheduler
 - Finish testing quota system
 - moving extra tabs to vLabs admin

Date: 7/13/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

*Professor availability tomorrow: anytime but 2-3pm

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Worked on color depth and resolution
- What is planned to be done until the next scrum meeting?
 - Make the url be port, then depth, then resolution
 - Work with Daniel for the button functionality and Trung for storing the values
 - The current refresh button refreshes the vm, need one to refresh the whole vLabs
 - get command to send from Daniel
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Began working on refresh
 - Finished stop, suspend, get state
- What is planned to be done until the next scrum meeting?
 - Work with Crystal on the button functionality
 - Work on refresh

- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - CSS after the order is sent Professor Sadjadi must receive an e-mail
 - Approve not tested yet
 - worked on custom packages
 - worked on pre-assignment
- What is planned to be done until the next scrum meeting?
 - Get together tomorrow with Professor Sadjadi and Trung
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Created a script that is essentially an installation script to be used for faster install and documentation
 - test on vlabs-dev
- What is planned to be done until the next scrum meeting?
 - Working on another script to overwrite files to install the plug in
 - Install Guacamole server and begin work on encrypted password
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Working on scheduler - working on some bugs that were found
 - Worked on the Color Manager tab
- What is planned to be done until the next scrum meeting?
 - Work on fixing issues
 - Work with professor to fix databases
- What are the hurdles?
 -

Date: 7/14/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Changed the connection id to be port, depth, dim and added a 'refresh all' button to navbar
 - Fixed a few bugs and worked with Daniel on button functionality - still need to verify refresh and work on refresh all
- What is planned to be done until the next scrum meeting?
 - Work with Trung on the database tables
 - Work on the isRDPready error
- What are the hurdles?
 - Getting a weird error from soap. may be because of erroneous db table access

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Worked with Crystal on getting the buttons working
 - Worked on refresh
- What is planned to be done until the next scrum meeting?
 - Test refresh tomorrow
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Worked on the JSON errors and other bugs
 - Worked on the email issue
- What is planned to be done until the next scrum meeting?
 - Configure the email resource to test functionality
 - Start on the extra tab in vLabsAdmin
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Completed the Guacamole install scripts
 - Made 2 Guacamole installs successfully
- What is planned to be done until the next scrum meeting?
 - Work on the REST password encryption
- What are the hurdles?
 - none

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Worked on implementing other tabs

- Met with Professor and Johann
- What is planned to done until the next scrum meeting?
 - Fix issues that came up with installation of module
 - Continue working on module
- What are the hurdles?
 -

Date: 7/15/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Status unchanged.
- What is planned to be done until the next scrum meeting?
 - Work with Trung on the database tables and the isRDPready issue
 - Meet with Johann and Trung to go over CSS
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Worked on refresh
 - refresh works but the button did not work
- What is planned to be done until the next scrum meeting?
 - Work on refresh_ve and destroy_ve
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - all css needs to be compliant with themes
 - Config .php needs to be compliant
- What is planned to be done until the next scrum meeting?
 - Meet with Trung and Crystal
 - Make sure all .svn files are gone before you commit
 - jQuery Directory retrieve it from online
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Enhanced comments in the install scripts
 - added option to not overwrite server.xml (tomcat config)
 - Started working on URL password encryption
- What is planned to be done until the next scrum meeting?
 - Will complete the URL password encryption
- What are the hurdles?
 - none

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Moved environment to Mac
 - Worked on fixing onInstall issues
- What is planned to be done until the next scrum meeting?
 - Finish onInstall issues
 - Work with Johann and Crystal on css, online scripts, config file
- What are the hurdles?
 -

Date: 7/15/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Met with Trung and Johann to cover the config.php, jQuery scripts, and CSS
 - Worked with the professor to figure out the isRDPready issue
 - Created the vlabs_user_info_data and vlabs_user_info_fields tables
- What is planned to be done until the next scrum meeting?
 - Change the references to the mdl_user_info tables to use the eFront tables and grab the resolution/color depth from said table on RDP tab load
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - Worked on destroy_ve.py
- What is planned to be done until the next scrum meeting?

- Add the state check to the run_vm_cmd
- Meet with the prof at 2 pm
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Met with Crystal and Trung to work on the 3 points previously discussed
 - Worked on why the module isn't working on the server
- What is planned to be done until the next scrum meeting?
 - Continue troubleshooting and working on the db tab
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Pushed story to git
 - Worked on the password encryption
- What is planned to be done until the next scrum meeting?
 - Continue working on password encryption
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Meet with Crystal and Johann to go over config files, jQuery, and css
 - Fixed onInstall, onDelete Issues
- What is planned to be done until the next scrum meeting?
 - Fix the script issues to grab the correct files from online repository
- What are the hurdles?

Date: 7/17/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Changed database calls to match eFront
 - Worked on reflecting the data in the select options in the UI
- What is planned to be done until the next scrum meeting?
 - Work on testing changes, refresh all, and the encrypted password
- What are the hurdles?

○

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Worked on upgrading the server with the professor
- What is planned to be done until the next scrum meeting?
 - Work with Crystal on Refresh All
 - Continue working with the professor on the upgrade
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Been finalizing the module, fixing small bugs
- What is planned to be done until the next scrum meeting?
 - Meet with the professor to troubleshoot server issue and to push to Git
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Completed installer scripts & pushed it to github
 - Set up password encryption in URL & pushed to github
- What is planned to be done until the next scrum meeting?
 - Modify guacamole plugin to allow connections only to our servers
- What are the hurdles?
 - None

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 -
- What is planned to be done until the next scrum meeting?
 -
- What are the hurdles?
 -

Date: 7/20/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Updated vlabs-dev.fiu.cis.fiu
 - fixed server issues
 - Fixed the selects for resolution/color depth
- What is planned to be done until the next scrum meeting?
 - Fix the first two tabs
 - tab1: add the image mapping and link them to the tabs
 - tab2: add links to tabs from the rows
 - add 1024 option to resolution select
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Worked on vc7 functionality
 - Working on start_vm to fix networking issue
- What is planned to be done until the next scrum meeting?
 - Work on the gold images to improve performance
 - Look into sed cmd
 - Work on vc7 - measure how long it takes from run to cntrl alt del if its below 1.5 minutes then yay
 - if thats the case, apply to all gold images, delete and create snapshots
 - Work on routers - aim for upgrades on thursday.
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Working on vLabs db tab
- What is planned to be done until the next scrum meeting?
 - Continue implementing the functionality of this tab.
 - move tab to vLabsAdmin module
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Worked on guacamole documentation
- What is planned to be done until the next scrum meeting?
 - fix the guacamole issue on servers
- What are the hurdles?
 -

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - It is now populating the same as the host
 - Still issue with colors
- What is planned to done until the next scrum meeting?
 - give Johann VE config and Host tabs
- What are the hurdles?
 -

Date: 7/21/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Added select option of 1024 and made connection table 'active'
 - Began implementing the tooltips - had to do from scratch
- What is planned to be done until the next scrum meeting?
 - Finish the tooltips
 - Look into the other issues - iframe width, DC obj not found, and the 2 ins of icard
 - Work with the professor to convert the in production server to use guacamole
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Changed the start_vm code to use sed
 - Fixed the routers to be saved
- What is planned to be done until the next scrum meeting?
 - clean installs of all the vms
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Working on the themes bug
 - Worked on the dbAdmin tab
- What is planned to be done until the next scrum meeting?
 - Continue working on the dbAdmin tab
- What are the hurdles?

○

Fourth student: Juan

- What was done since the last scrum meeting?
 - Fixed the bug that broke guacamole
- What is planned to be done until the next scrum meeting?
 - Work to get the restrictions on the server working
- What are the hurdles?
 - None

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Imported scheduler_color table data
 - Converted existing db calls for said table
 - Finished color manager tab
- What is planned to be done until the next scrum meeting?
 - Continue working on tabs
- What are the hurdles?

Date: 7/22/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Worked with the professor to try Guacamole on the in production server
 - Finished tooltips and worked on iframe size issue
 - Fixed themes bug
- What is planned to be done until the next scrum meeting?
 - Figure out why the encrypted password isn't working
 - Work on testing in various browsers and try to hide the rendering
- What are the hurdles?
 -

Second student: Daniel Gonzalez

- What was done since the last scrum meeting?
 - Went through the clean installs
 - found out they didn't perform any better

- What is planned to be done until the next scrum meeting?
 - Check up on some code to follow a bug
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Worked on dbAdmin tab
- What is planned to be done until the next scrum meeting?
 - Finish working on this tab
- What are the hurdles?
 -

Fourth student: Juan

- What was done since the last scrum meeting?
 - Still working on restricting connections to only our servers.
- What is planned to be done until the next scrum meeting?
 - Complete restricting connections.
- What are the hurdles?
 - None.

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Worked on tab
- What is planned to be done until the next scrum meeting?
 - continue to work on tab
- What are the hurdles?
 -

Date: 7/23/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- What was done since the last scrum meeting?
 - Fixed rendering
 - Fixed some browser specific display issues
 - Fixed bug where the rdp tabs loaded incorrectly upon first scheduled visit
- What is planned to be done until the next scrum meeting?
 - Prepare for sprint review
- What are the hurdles?

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Second student: Daniel Gonzalez

- What done since the last scrum meeting?
 - Fixed issue with restore files not being deleted
 - Working on optimization
- What is planned to be done until the next scrum meeting?
 - Prepare for sprint review
- What are the hurdles?
 -

Third student: Johann Henao

- What was done since the last scrum meeting?
 - Working on the dbAdmin tab - file import functionality
 - Need to work on schema import/export functionality.
- What is planned to be done until the next scrum meeting?
 - Prepare for sprint review
- What are the hurdles?
 - File handling functions are complicated and transfer of file to the server through ajax was pretty challenging.

Fourth student: Juan

- What was done since the last scrum meeting?
 - Worked on the restrictions for guacamole
- What is planned to be done until the next scrum meeting?
 - Prepare for sprint review
- What are the hurdles?
 - None.

Fifth student: Trung Ngo

- What was done since the last scrum meeting?
 - Worked on scheduler tab
- What is planned to be done until the next scrum meeting?
 - Prepare for sprint review
- What are the hurdles?
 -

Date: 7/24/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- Topics Discussed:
 - things to fix:
 - add refresh popup for confirmation
 - add a condition for modern_uk theme
 - remove ajax upon color depth select
 - Adjust button placement and fonts on toolbar
 - check the id in guac url

Second student: Daniel Gonzalez

- Topics Discussed:
 - Make sure that errors that have been resolved in the past and tiny details are noted in the documentation
 - Add a table of contents and titles for the sections
 - Document making a kvm server ready in vLabs

Third student: Johann Henao

- Topics Discussed:
 - The export should download a file
 - Finalize testing by 1:00

Fourth student: Juan

- Topics Discussed:
 - Go through Documentation to finalize little things

Fifth student: Trung Ngo

- Topics Discussed:
 - Figure out the install issue pronto

Date: 7/27/2015

Attendees: All

Start time: 8:30

End time: 9:00

Minute Taker: All

First student: Crystal Rivera

- Topics Discussed:
 - Worked on poster
 - Looked into issues about allocating time for the server

Second student: Daniel Gonzalez

- Topics Discussed:
 - Try/catch statements to scripts more efficient

- Worked on poster

Third student: Johann Henao

- Topics Discussed:
 - worked on poster

Fourth student: Juan

- Topics Discussed:
 - worked on poster

Fifth student: Trung Ngo

- Topics Discussed:
 - worked on poster
 - onnewcourse, onupdatecourse, ondeletecourse, onnewuser, onupdateuser, on deleteuser
 - mention that those should be overridden so tables will keep up to speed with the changes in eFront