*Florida International University*

*School of Computing and Information Sciences*

CIS 4911 - Senior Capstone Project

Software Engineering Focus

Final Deliverable

Virtual Labs 3.0

Team #13

Virtual Labs & vLabsAdmin Modules

**Team Members**

Crystal Rivera

Daniel Gonzalez

Johann Henao

Juan Riano

Trung Ngo

**Product Owner**: Masoud Sadjadi

**Instructor**: Masoud Sadjadi

### GNU GENERAL PUBLIC LICENSE

Version 3, 29 June 2007

### TERMS AND CONDITIONS

#### 0. Definitions.

“This License” refers to version 3 of the GNU General Public License.

“Copyright” also means copyright-like laws that apply to other kinds of works, such as semiconductor masks.

“The Program” refers to any copyrightable work licensed under this License. Each licensee is addressed as “you”. “Licensees” and “recipients” may be individuals or organizations.

To “modify” a work means to copy from or adapt all or part of the work in a fashion requiring copyright permission, other than the making of an exact copy. The resulting work is called a “modified version” of the earlier work or a work “based on” the earlier work.

A “covered work” means either the unmodified Program or a work based on the Program.

To “propagate” a work means to do anything with it that, without permission, would make you directly or secondarily liable for infringement under applicable copyright law, except executing it on a computer or modifying a private copy. Propagation includes copying, distribution (with or without modification), making available to the public, and in some countries other activities as well.

To “convey” a work means any kind of propagation that enables other parties to make or receive copies. Mere interaction with a user through a computer network, with no transfer of a copy, is not conveying.

An interactive user interface displays “Appropriate Legal Notices” to the extent that it includes a convenient and prominently visible feature that (1) displays an appropriate copyright notice, and (2) tells the user that there is no warranty for the work (except to the extent that warranties are provided), that licensees may convey the work under this License, and how to view a copy of this License. If the interface presents a list of user commands or options, such as a menu, a prominent item in the list meets this criterion.

#### 1. Source Code.

The “source code” for a work means the preferred form of the work for making modifications to it. “Object code” means any non-source form of a work.

A “Standard Interface” means an interface that either is an official standard defined by a recognized standards body, or, in the case of interfaces specified for a particular programming language, one that is widely used among developers working in that language.

The “System Libraries” of an executable work include anything, other than the work as a whole, that (a) is included in the normal form of packaging a Major Component, but which is not part of that Major Component, and (b) serves only to enable use of the work with that Major Component, or to implement a Standard Interface for which an implementation is available to the public in source code form. A “Major Component”, in this context, means a major essential component (kernel, window system, and so on) of the specific operating system (if any) on which the executable work runs, or a compiler used to produce the work, or an object code interpreter used to run it.

The “Corresponding Source” for a work in object code form means all the source code needed to generate, install, and (for an executable work) run the object code and to modify the work, including scripts to control those activities. However, it does not include the work's System Libraries, or general-purpose tools or generally available free programs which are used unmodified in performing those activities but which are not part of the work. For example, Corresponding Source includes interface definition files associated with source files for the work, and the source code for shared libraries and dynamically linked subprograms that the work is specifically designed to require, such as by intimate data communication or control flow between those subprograms and other parts of the work.

The Corresponding Source need not include anything that users can regenerate automatically from other parts of the Corresponding Source.

The Corresponding Source for a work in source code form is that same work.

#### 2. Basic Permissions.

All rights granted under this License are granted for the term of copyright on the Program, and are irrevocable provided the stated conditions are met. This License explicitly affirms your unlimited permission to run the unmodified Program. The output from running a covered work is covered by this License only if the output, given its content, constitutes a covered work. This License acknowledges your rights of fair use or other equivalent, as provided by copyright law.

You may make, run and propagate covered works that you do not convey, without conditions so long as your license otherwise remains in force. You may convey covered works to others for the sole purpose of having them make modifications exclusively for you, or provide you with facilities for running those works, provided that you comply with the terms of this License in conveying all material for which you do not control copyright. Those thus making or running the covered works for you must do so exclusively on your behalf, under your direction and control, on terms that prohibit them from making any copies of your copyrighted material outside their relationship with you.

Conveying under any other circumstances is permitted solely under the conditions stated below. Sublicensing is not allowed; section 10 makes it unnecessary.

#### 3. Protecting Users' Legal Rights From Anti-Circumvention Law.

No covered work shall be deemed part of an effective technological measure under any applicable law fulfilling obligations under article 11 of the WIPO copyright treaty adopted on 20 December 1996, or similar laws prohibiting or restricting circumvention of such measures.

When you convey a covered work, you waive any legal power to forbid circumvention of technological measures to the extent such circumvention is effected by exercising rights under this License with respect to the covered work, and you disclaim any intention to limit operation or modification of the work as a means of enforcing, against the work's users, your or third parties' legal rights to forbid circumvention of technological measures.

#### 4. Conveying Verbatim Copies.

You may convey verbatim copies of the Program's source code as you receive it, in any medium, provided that you conspicuously and appropriately publish on each copy an appropriate copyright notice; keep intact all notices stating that this License and any non-permissive terms added in accord with section 7 apply to the code; keep intact all notices of the absence of any warranty; and give all recipients a copy of this License along with the Program.

You may charge any price or no price for each copy that you convey, and you may offer support or warranty protection for a fee.

#### 5. Conveying Modified Source Versions.

You may convey a work based on the Program, or the modifications to produce it from the Program, in the form of source code under the terms of section 4, provided that you also meet all of these conditions:

* a) The work must carry prominent notices stating that you modified it, and giving a relevant date.
* b) The work must carry prominent notices stating that it is released under this License and any conditions added under section 7. This requirement modifies the requirement in section 4 to “keep intact all notices”.
* c) You must license the entire work, as a whole, under this License to anyone who comes into possession of a copy. This License will therefore apply, along with any applicable section 7 additional terms, to the whole of the work, and all its parts, regardless of how they are packaged. This License gives no permission to license the work in any other way, but it does not invalidate such permission if you have separately received it.
* d) If the work has interactive user interfaces, each must display Appropriate Legal Notices; however, if the Program has interactive interfaces that do not display Appropriate Legal Notices, your work need not make them do so.

A compilation of a covered work with other separate and independent works, which are not by their nature extensions of the covered work, and which are not combined with it such as to form a larger program, in or on a volume of a storage or distribution medium, is called an “aggregate” if the compilation and its resulting copyright are not used to limit the access or legal rights of the compilation's users beyond what the individual works permit. Inclusion of a covered work in an aggregate does not cause this License to apply to the other parts of the aggregate.

#### 6. Conveying Non-Source Forms.

You may convey a covered work in object code form under the terms of sections 4 and 5, provided that you also convey the machine-readable Corresponding Source under the terms of this License, in one of these ways:

* a) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by the Corresponding Source fixed on a durable physical medium customarily used for software interchange.
* b) Convey the object code in, or embodied in, a physical product (including a physical distribution medium), accompanied by a written offer, valid for at least three years and valid for as long as you offer spare parts or customer support for that product model, to give anyone who possesses the object code either (1) a copy of the Corresponding Source for all the software in the product that is covered by this License, on a durable physical medium customarily used for software interchange, for a price no more than your reasonable cost of physically performing this conveying of source, or (2) access to copy the Corresponding Source from a network server at no charge.
* c) Convey individual copies of the object code with a copy of the written offer to provide the Corresponding Source. This alternative is allowed only occasionally and noncommercially, and only if you received the object code with such an offer, in accord with subsection 6b.
* d) Convey the object code by offering access from a designated place (gratis or for a charge), and offer equivalent access to the Corresponding Source in the same way through the same place at no further charge. You need not require recipients to copy the Corresponding Source along with the object code. If the place to copy the object code is a network server, the Corresponding Source may be on a different server (operated by you or a third party) that supports equivalent copying facilities, provided you maintain clear directions next to the object code saying where to find the Corresponding Source. Regardless of what server hosts the Corresponding Source, you remain obligated to ensure that it is available for as long as needed to satisfy these requirements.
* e) Convey the object code using peer-to-peer transmission, provided you inform other peers where the object code and Corresponding Source of the work are being offered to the general public at no charge under subsection 6d.

A separable portion of the object code, whose source code is excluded from the Corresponding Source as a System Library, need not be included in conveying the object code work.

A “User Product” is either (1) a “consumer product”, which means any tangible personal property which is normally used for personal, family, or household purposes, or (2) anything designed or sold for incorporation into a dwelling. In determining whether a product is a consumer product, doubtful cases shall be resolved in favor of coverage. For a particular product received by a particular user, “normally used” refers to a typical or common use of that class of product, regardless of the status of the particular user or of the way in which the particular user actually uses, or expects or is expected to use, the product. A product is a consumer product regardless of whether the product has substantial commercial, industrial or non-consumer uses, unless such uses represent the only significant mode of use of the product.

“Installation Information” for a User Product means any methods, procedures, authorization keys, or other information required to install and execute modified versions of a covered work in that User Product from a modified version of its Corresponding Source. The information must suffice to ensure that the continued functioning of the modified object code is in no case prevented or interfered with solely because modification has been made.

If you convey an object code work under this section in, or with, or specifically for use in, a User Product, and the conveying occurs as part of a transaction in which the right of possession and use of the User Product is transferred to the recipient in perpetuity or for a fixed term (regardless of how the transaction is characterized), the Corresponding Source conveyed under this section must be accompanied by the Installation Information. But this requirement does not apply if neither you nor any third party retains the ability to install modified object code on the User Product (for example, the work has been installed in ROM).

The requirement to provide Installation Information does not include a requirement to continue to provide support service, warranty, or updates for a work that has been modified or installed by the recipient, or for the User Product in which it has been modified or installed. Access to a network may be denied when the modification itself materially and adversely affects the operation of the network or violates the rules and protocols for communication across the network.

Corresponding Source conveyed, and Installation Information provided, in accord with this section must be in a format that is publicly documented (and with an implementation available to the public in source code form), and must require no special password or key for unpacking, reading or copying.

#### 7. Additional Terms.

“Additional permissions” are terms that supplement the terms of this License by making exceptions from one or more of its conditions. Additional permissions that are applicable to the entire Program shall be treated as though they were included in this License, to the extent that they are valid under applicable law. If additional permissions apply only to part of the Program, that part may be used separately under those permissions, but the entire Program remains governed by this License without regard to the additional permissions.

When you convey a copy of a covered work, you may at your option remove any additional permissions from that copy, or from any part of it. (Additional permissions may be written to require their own removal in certain cases when you modify the work.) You may place additional permissions on material, added by you to a covered work, for which you have or can give appropriate copyright permission.

Notwithstanding any other provision of this License, for material you add to a covered work, you may (if authorized by the copyright holders of that material) supplement the terms of this License with terms:

* a) Disclaiming warranty or limiting liability differently from the terms of sections 15 and 16 of this License; or
* b) Requiring preservation of specified reasonable legal notices or author attributions in that material or in the Appropriate Legal Notices displayed by works containing it; or
* c) Prohibiting misrepresentation of the origin of that material, or requiring that modified versions of such material be marked in reasonable ways as different from the original version; or
* d) Limiting the use for publicity purposes of names of licensors or authors of the material; or
* e) Declining to grant rights under trademark law for use of some trade names, trademarks, or service marks; or
* f) Requiring indemnification of licensors and authors of that material by anyone who conveys the material (or modified versions of it) with contractual assumptions of liability to the recipient, for any liability that these contractual assumptions directly impose on those licensors and authors.

All other non-permissive additional terms are considered “further restrictions” within the meaning of section 10. If the Program as you received it, or any part of it, contains a notice stating that it is governed by this License along with a term that is a further restriction, you may remove that term. If a license document contains a further restriction but permits relicensing or conveying under this License, you may add to a covered work material governed by the terms of that license document, provided that the further restriction does not survive such relicensing or conveying.

If you add terms to a covered work in accord with this section, you must place, in the relevant source files, a statement of the additional terms that apply to those files, or a notice indicating where to find the applicable terms.

Additional terms, permissive or non-permissive, may be stated in the form of a separately written license, or stated as exceptions; the above requirements apply either way.

#### 8. Termination.

You may not propagate or modify a covered work except as expressly provided under this License. Any attempt otherwise to propagate or modify it is void, and will automatically terminate your rights under this License (including any patent licenses granted under the third paragraph of section 11).

However, if you cease all violation of this License, then your license from a particular copyright holder is reinstated (a) provisionally, unless and until the copyright holder explicitly and finally terminates your license, and (b) permanently, if the copyright holder fails to notify you of the violation by some reasonable means prior to 60 days after the cessation.

Moreover, your license from a particular copyright holder is reinstated permanently if the copyright holder notifies you of the violation by some reasonable means, this is the first time you have received notice of violation of this License (for any work) from that copyright holder, and you cure the violation prior to 30 days after your receipt of the notice.

Termination of your rights under this section does not terminate the licenses of parties who have received copies or rights from you under this License. If your rights have been terminated and not permanently reinstated, you do not qualify to receive new licenses for the same material under section 10.

#### 9. Acceptance Not Required for Having Copies.

You are not required to accept this License in order to receive or run a copy of the Program. Ancillary propagation of a covered work occurring solely as a consequence of using peer-to-peer transmission to receive a copy likewise does not require acceptance. However, nothing other than this License grants you permission to propagate or modify any covered work. These actions infringe copyright if you do not accept this License. Therefore, by modifying or propagating a covered work, you indicate your acceptance of this License to do so.

#### 10. Automatic Licensing of Downstream Recipients.

Each time you convey a covered work, the recipient automatically receives a license from the original licensors, to run, modify and propagate that work, subject to this License. You are not responsible for enforcing compliance by third parties with this License.

An “entity transaction” is a transaction transferring control of an organization, or substantially all assets of one, or subdividing an organization, or merging organizations. If propagation of a covered work results from an entity transaction, each party to that transaction who receives a copy of the work also receives whatever licenses to the work the party's predecessor in interest had or could give under the previous paragraph, plus a right to possession of the Corresponding Source of the work from the predecessor in interest, if the predecessor has it or can get it with reasonable efforts.

You may not impose any further restrictions on the exercise of the rights granted or affirmed under this License. For example, you may not impose a license fee, royalty, or other charge for exercise of rights granted under this License, and you may not initiate litigation (including a cross-claim or counterclaim in a lawsuit) alleging that any patent claim is infringed by making, using, selling, offering for sale, or importing the Program or any portion of it.

#### 11. Patents.

A “contributor” is a copyright holder who authorizes use under this License of the Program or a work on which the Program is based. The work thus licensed is called the contributor's “contributor version”.

A contributor's “essential patent claims” are all patent claims owned or controlled by the contributor, whether already acquired or hereafter acquired, that would be infringed by some manner, permitted by this License, of making, using, or selling its contributor version, but do not include claims that would be infringed only as a consequence of further modification of the contributor version. For purposes of this definition, “control” includes the right to grant patent sublicenses in a manner consistent with the requirements of this License.

Each contributor grants you a non-exclusive, worldwide, royalty-free patent license under the contributor's essential patent claims, to make, use, sell, offer for sale, import and otherwise run, modify and propagate the contents of its contributor version.

In the following three paragraphs, a “patent license” is any express agreement or commitment, however denominated, not to enforce a patent (such as an express permission to practice a patent or covenant not to sue for patent infringement). To “grant” such a patent license to a party means to make such an agreement or commitment not to enforce a patent against the party.

If you convey a covered work, knowingly relying on a patent license, and the Corresponding Source of the work is not available for anyone to copy, free of charge and under the terms of this License, through a publicly available network server or other readily accessible means, then you must either (1) cause the Corresponding Source to be so available, or (2) arrange to deprive yourself of the benefit of the patent license for this particular work, or (3) arrange, in a manner consistent with the requirements of this License, to extend the patent license to downstream recipients. “Knowingly relying” means you have actual knowledge that, but for the patent license, your conveying the covered work in a country, or your recipient's use of the covered work in a country, would infringe one or more identifiable patents in that country that you have reason to believe are valid.

If, pursuant to or in connection with a single transaction or arrangement, you convey, or propagate by procuring conveyance of, a covered work, and grant a patent license to some of the parties receiving the covered work authorizing them to use, propagate, modify or convey a specific copy of the covered work, then the patent license you grant is automatically extended to all recipients of the covered work and works based on it.

A patent license is “discriminatory” if it does not include within the scope of its coverage, prohibits the exercise of, or is conditioned on the non-exercise of one or more of the rights that are specifically granted under this License. You may not convey a covered work if you are a party to an arrangement with a third party that is in the business of distributing software, under which you make payment to the third party based on the extent of your activity of conveying the work, and under which the third party grants, to any of the parties who would receive the covered work from you, a discriminatory patent license (a) in connection with copies of the covered work conveyed by you (or copies made from those copies), or (b) primarily for and in connection with specific products or compilations that contain the covered work, unless you entered into that arrangement, or that patent license was granted, prior to 28 March 2007.

Nothing in this License shall be construed as excluding or limiting any implied license or other defenses to infringement that may otherwise be available to you under applicable patent law.

#### 12. No Surrender of Others' Freedom.

If conditions are imposed on you (whether by court order, agreement or otherwise) that contradict the conditions of this License, they do not excuse you from the conditions of this License. If you cannot convey a covered work so as to satisfy simultaneously your obligations under this License and any other pertinent obligations, then as a consequence you may not convey it at all. For example, if you agree to terms that obligate you to collect a royalty for further conveying from those to whom you convey the Program, the only way you could satisfy both those terms and this License would be to refrain entirely from conveying the Program.

#### 13. Use with the GNU Affero General Public License.

Notwithstanding any other provision of this License, you have permission to link or combine any covered work with a work licensed under version 3 of the GNU Affero General Public License into a single combined work, and to convey the resulting work. The terms of this License will continue to apply to the part which is the covered work, but the special requirements of the GNU Affero General Public License, section 13, concerning interaction through a network will apply to the combination as such.

#### 14. Revised Versions of this License.

The Free Software Foundation may publish revised and/or new versions of the GNU General Public License from time to time. Such new versions will be similar in spirit to the present version, but may differ in detail to address new problems or concerns.

Each version is given a distinguishing version number. If the Program specifies that a certain numbered version of the GNU General Public License “or any later version” applies to it, you have the option of following the terms and conditions either of that numbered version or of any later version published by the Free Software Foundation. If the Program does not specify a version number of the GNU General Public License, you may choose any version ever published by the Free Software Foundation.

If the Program specifies that a proxy can decide which future versions of the GNU General Public License can be used, that proxy's public statement of acceptance of a version permanently authorizes you to choose that version for the Program.

Later license versions may give you additional or different permissions. However, no additional obligations are imposed on any author or copyright holder as a result of your choosing to follow a later version.

#### 15. Disclaimer of Warranty.

THERE IS NO WARRANTY FOR THE PROGRAM, TO THE EXTENT PERMITTED BY APPLICABLE LAW. EXCEPT WHEN OTHERWISE STATED IN WRITING THE COPYRIGHT HOLDERS AND/OR OTHER PARTIES PROVIDE THE PROGRAM “AS IS” WITHOUT WARRANTY OF ANY KIND, EITHER EXPRESSED OR IMPLIED, INCLUDING, BUT NOT LIMITED TO, THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE. THE ENTIRE RISK AS TO THE QUALITY AND PERFORMANCE OF THE PROGRAM IS WITH YOU. SHOULD THE PROGRAM PROVE DEFECTIVE, YOU ASSUME THE COST OF ALL NECESSARY SERVICING, REPAIR OR CORRECTION.

#### 16. Limitation of Liability.

IN NO EVENT UNLESS REQUIRED BY APPLICABLE LAW OR AGREED TO IN WRITING WILL ANY COPYRIGHT HOLDER, OR ANY OTHER PARTY WHO MODIFIES AND/OR CONVEYS THE PROGRAM AS PERMITTED ABOVE, BE LIABLE TO YOU FOR DAMAGES, INCLUDING ANY GENERAL, SPECIAL, INCIDENTAL OR CONSEQUENTIAL DAMAGES ARISING OUT OF THE USE OR INABILITY TO USE THE PROGRAM (INCLUDING BUT NOT LIMITED TO LOSS OF DATA OR DATA BEING RENDERED INACCURATE OR LOSSES SUSTAINED BY YOU OR THIRD PARTIES OR A FAILURE OF THE PROGRAM TO OPERATE WITH ANY OTHER PROGRAMS), EVEN IF SUCH HOLDER OR OTHER PARTY HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES.

#### 17. Interpretation of Sections 15 and 16.

If the disclaimer of warranty and limitation of liability provided above cannot be given local legal effect according to their terms, reviewing courts shall apply local law that most closely approximates an absolute waiver of all civil liability in connection with the Program, unless a warranty or assumption of liability accompanies a copy of the Program in return for a fee.

END OF TERMS AND CONDITIONS

**Abstract**

The Virtual Labs system for the IT Automation course (CIS 4431) in FIU allowed students to manage their time and resources so that they could complete assignments in a timely fashion while they minimizing the stress on the system due to spikes in traffic near the time of submission of assignments. However, recent changes to web applications and practices have resulted in a need to update the current system to comply with these changes and better manage its solution.

Table of Contents

IntroDuction18

Problem Definition18

Scope of System18

Development Methodology19

Terminology19

Overview of Document20

Feasibility Study21

Current System21

Alternatives22

Recommendation23

Project Plan25

Project Organization25

Alternatives22

Work Breakdown26

Proposed System Requirements27

Functional Requirements27

Analysis of Functional Requirements30

Scenarios30

Use Case Models34

Static Models41

Dynamic Models41

System Design42

Overview of System42

Subsystem Decomposition43

Hardware/Software Mapping44

Persistent Data Design45

Security & Privacy46

Detailed Design47

Overview47

Static Model48

Dynamic Model50

Code Specification55

System Validation57

Glossary59

Appendix60

Appendix A – Project Schedule60

Appendix B – Use Cases 61

Appendix C – User Interface66

Appendix D – Static UML Diagrams70

Appendix E – Dynamic UML Diagrams72

Appendix F – Diary of Meetings80

**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 current system is split between two systems, Moodle and eFront. The former system is used as a means of managing resources for the latter system. Students and administrators for Virtual Labs use Moodle to manage their resources and then use eFront to consume these resources. This results in unnecessary overhead and more complications, as students and administrators will need to manage these two accounts separately.

The Quota System allows the administrator to allocate resources for the students to use in eFront while allowing the students to view their usage and remaining quota for their given course assignment. The Scheduler allows the administrator to view and edit configurations for the virtual environment, host information, and student schedules pertaining to Virtual Labs. The student is given solely information about their schedule pertaining to Virtual Labs.

**1.2 Scope of System**

The scope of the Quota System is to allow the administrator to manage resources for courses as well as add new policies for the credit types. This allows the administrator to plan assignment quotas and modify these polices and credit types as necessary. The student can view their assign and remaining quota through this system to better provide feedback for the student to better manage their time on a given assignment.

The scope of the Scheduler is to allow the administrator to view and manage the students appointments, manage the virtual environment settings, manages hosts, and manage the color scheme of appointments to better view them on a calendar.

The system does not allow students to access quota they have not been assigned or will be assigned. The system does not allow students to view any information that does not pertain to them. The system does not allow administrators to delete currently used policies.

**1.3 Development Methodology**

Fortunately for this release, my team and I were upgrading the current version of the Virtual Labs. This meant that a majority of the development on the system had been completed and simply applying changes on to the system to better the performance of the system.

**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).
* **WSD**L- (Web Services Description Language) is an XML-based language that provides a model for describing Web services.
* **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.
* **SOAP-** an XML-based messaging protocol. It defines a set of rules for structuring messages that can be used for messaging or passing data to and from a server.
* **LMS** – Acronym for Learning Management System.
* **Moodle** - an LMS like eFront, this is where a portion of the current system lies
* **Qutoa System** – A module developed to provide an administrator a way to maintain policies and credit types for future use and for student to view their information pertaining to their quota and courses.
* **Policy -** an abstract object that functions as a means of assigning quota to a credit type along with multiple types that allow flexibility of the policy to better fit it purpose.
* **Credit type –** an abstract object that represents an assignment for a course in this IT Automation course.
* **Quota –** an amount of time to be used for a policy.
* **Scheduler**– A module developed to provide an administrator a way to view and maintain student schedules as well as maintain virtual environment settings, host settings, and color schemes for color-coding the calendar.

**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 it’s 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 appendicles 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 systems use Moodle as an interface for managing a student’s resource and for an administrator to better allocate and manage these resources. The Quota System allows students to view their remain quota as well as their used quota while allowing the administrators to assign these quotas for each course or assignment. The Scheduler allows students to view their previously and future schedules while allowing the administrator to view all student schedules, past and present.

***Current Limitations***

* Utilizing Moodle is unnecessary since the eFront LMS can handle the modular functionality needed.
* The modules are rather large and bloated with overhead which can be better managed.

**2.2 Alternatives**

* **Alternative 1 – Make Quota System native to eFront (SELECTED)**

Currently, Quota System is a module in Moodle where students and administrators for the course can view and manage their resources.

This is the solution that has been chosen for this release because we can improve performance by removing Moodle dependencies from the code as well as optimize the size of the module and removing the overhead of having two separate solutions.

* **Alternative 2 – Make Scheduler native to eFront (SELECTED)**

The Scheduler is currently a module in Moodle where students and administrators can view schedules that they have currently and will have.

This is the solution that has been chosen for this release because we can improve performance by removing Moodle dependencies from the code as well as optimize the size of the module and removing the overhead of having two separate solutions.

* **Alternative 3 – Migrate eFront modules to Moodle**

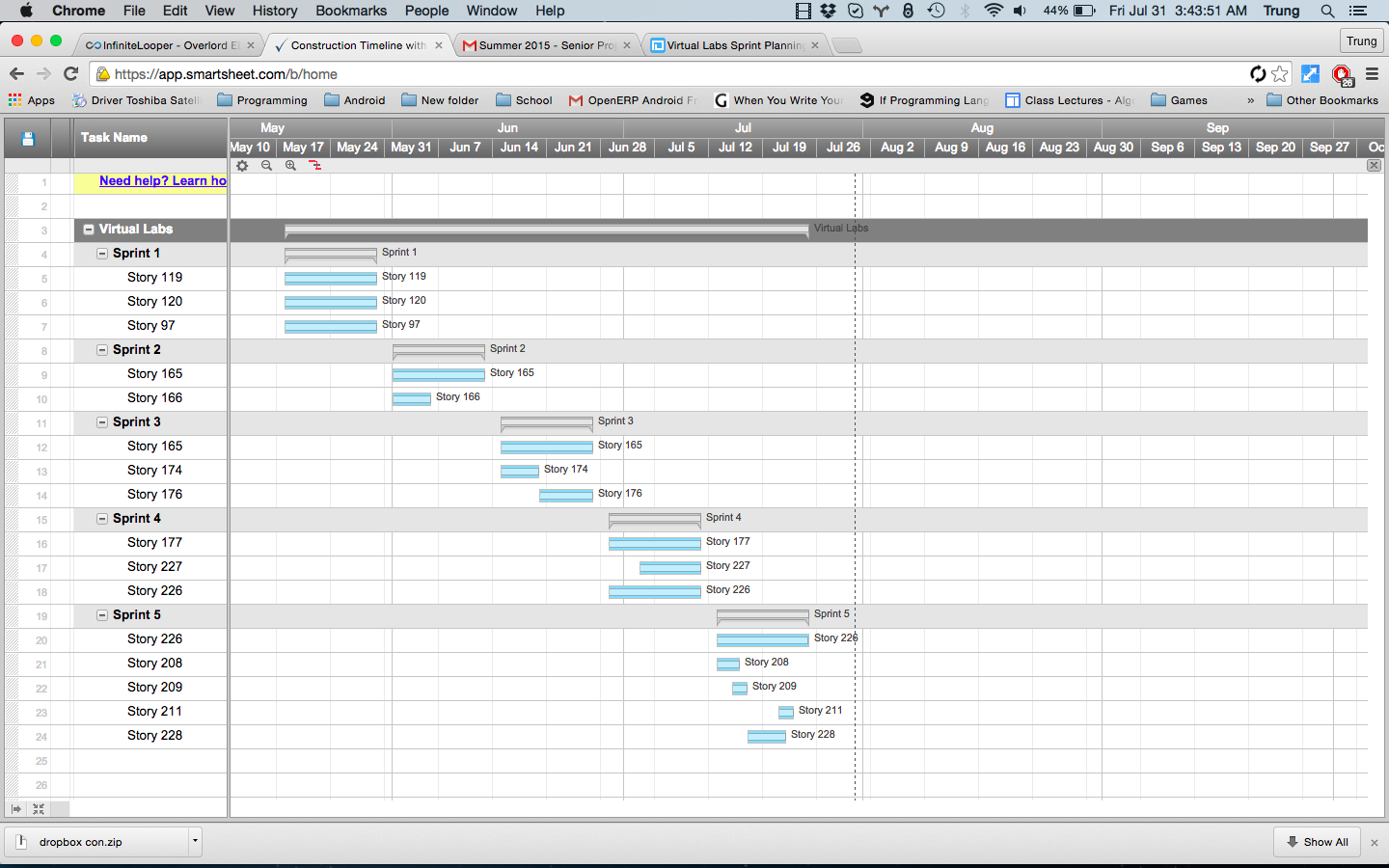
Due to an exisiting agreement with Kaseya, a leader in IT automation, this choice was not selected. Kaseya has allowed FIU to host its course here and as such, migrating away from eFront would be the less optimal solution.

**2.3 Recommendation**

Choosing to make the modules an exclusive eFront-only module was motivated by time. By making the module an eFront native, code from the current version could be migrated over and be refractor. This would expedite development as well as improve file size as part of the code can be replaced or removed entirely.

**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
* Daniel Gonzalez: Developer
* Johan Henao: Developer
* Juan Riano: Developer
* Trung Ngo: Developer

**3.2 Work Breakdown**

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

**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**

**Quota System**

* The system shall allow the student to view their assigned and used quota. The system shall allow the administrator to modify and view the policies and credit types.
  + *Reliability*: The vlabs server should be resilient to faults and heavy traffic
  + *Performance*: The system should load the user’s scheduled instance within 1 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 Safari
* The system shall allow the administrator to add or modify polices as they see fit.

**Scheduler**

* The system shall allow the administrator to view or modify the schedules of students taking courses.
  + *Reliability*: The vlabs server should be resilient to faults and heavy traffic
  + *Performance*: The system should load the user’s scheduled instance within 1 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 Safari
* The system shall allow the administrator to manage virtual environment settings, host settings, and color configuration of the calendar for the schedules.
* The system shall allow the student to view their own appointments, pending, allocated or past.

**4.2 Analysis of Functional Requirements**

**4.2.1 Scenarios**

**Quota System**

|  |  |
| --- | --- |
| Scenario Name: **Add Policy** | |
|  | |
| Participating Actors: | **Administrator** |
|  |  |
| Flow of Events: | * 1. The administrator clicks the add policy button in the Quota System module.   2. The administrator fills out the form for the policy.   3. The administrator then clicks the save button.   4. The administrator will see that the policy is added, assume that there are no conflicts with the data. |

|  |  |
| --- | --- |
| Scenario Name: **Add Credit Type** | |
|  | |
| Participating Actors: | **Administrator** |
|  |  |
| Flow of Events: | * 1. The administrator clicks the add credit type button in the Quota System module.   2. The administrator fills out the form for the credit type.   3. The administrator then clicks the save button.   4. The administrator will see that the credit type is added, assume that there are no conflicts with the data. |

|  |  |
| --- | --- |
| Scenario Name: **Modify Policy** | |
|  | |
| Participating Actors: | **Administrator** |
|  |  |
| Flow of Events: | * 1. The administrator clicks the modify button in the Quota System module.   2. The administrator fills out the form for the policy.   3. The administrator then clicks the save button.   4. The administrator will see that the policy is added, assume that there are no conflicts with the data. |

|  |  |
| --- | --- |
| Scenario Name: **Modify Credit Type** | |
|  | |
| Participating Actors: | **Administrator** |
|  |  |
| Flow of Events: | * 1. The administrator clicks the modify button in the Quota System module.   2. The administrator fills out the form for the credit type.   3. The administrator then clicks the save button.   4. The administrator will see that the credit type is added, assume that there are no conflicts with the data. |

|  |  |
| --- | --- |
| Scenario Name: **View quota** | |
|  | |
| Participating Actors: | **Student** |
|  |  |
| Flow of Events: | * 1. The student decides that they want to view their quota.   2. Navigate to the quota system module   3. The system displays the quota they currently have |

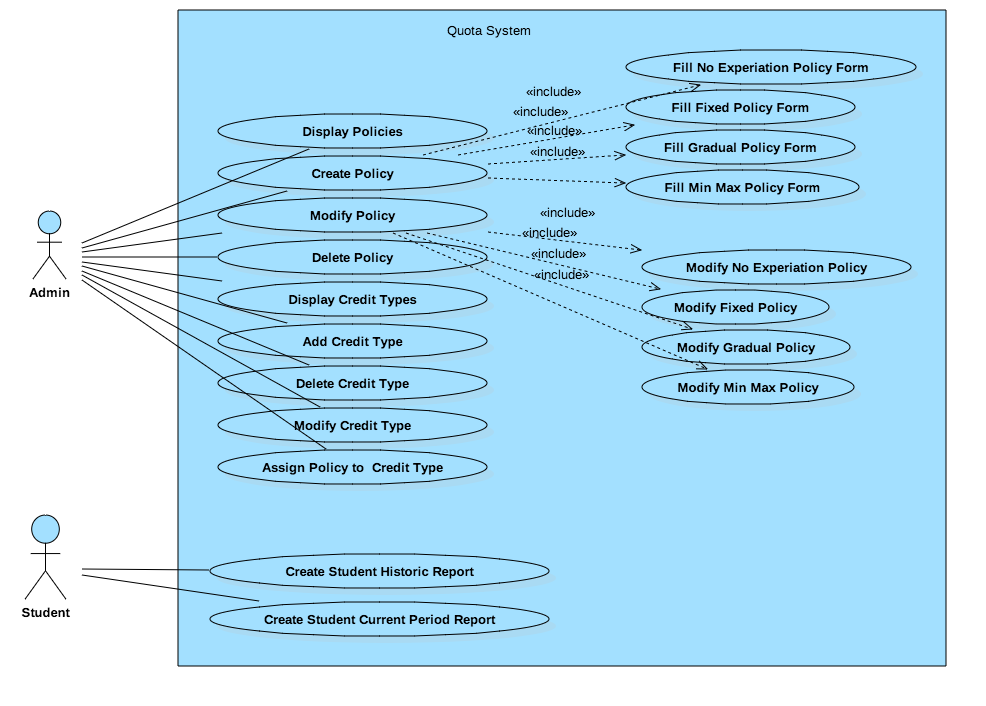
**Scheduler**

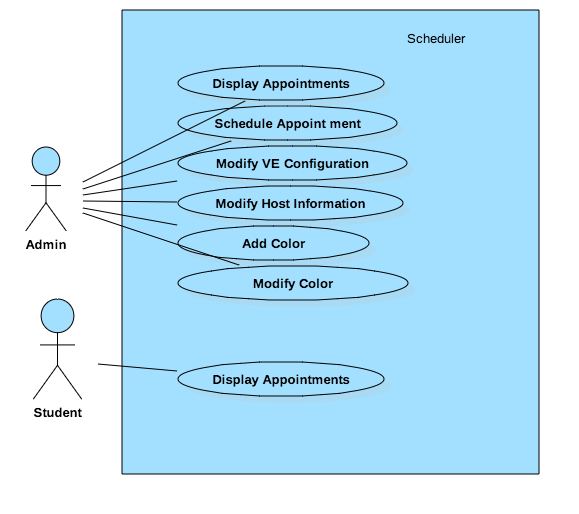
|  |  |
| --- | --- |
| Scenario Name: **View schedule, admin** | |
|  | |
| Participating Actors: | **Administrator** |
|  |  |
| Flow of Events: | * 1. The administrator opens the Scheduler module   2. The module displays all the schedules of the all students in the course. |

|  |  |
| --- | --- |
| Scenario Name: **View schedule, stud** | |
|  | |
| Participating Actors: | **Student** |
|  |  |
| Flow of Events: | * 1. The student opens the Scheduler module   2. The module displays all the schedules for said student in the courses they’re in. |

**4.2.2 Use Case Models**

The following use case models elucidate the use case scenarios illustrated by the models in the appendix. Below are all the implement use cases for the Scheduler and the Quota System.

****

**4.2.3 Static Model**

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

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

The diagram in Appendix D-2, illustrates the persistent data model that both the Quota System and Scheduler have. The Quota System manages the courses, users, quota, credit types, and policy tables to create policies, credit types as well as modify them. The Scheduler needs the courses, users and appointments to allow users and administrators to view and manage their schedules for the courses.

**4.2.4 Dynamic Model**

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

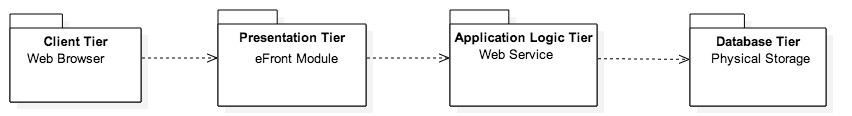
Included in this appendix are sequence diagrams that match the use cases and scenarios aforementioned in this document. Theses diagrams represent the sequence of which certain actions like add policy or display appointments interact with the users.

**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.

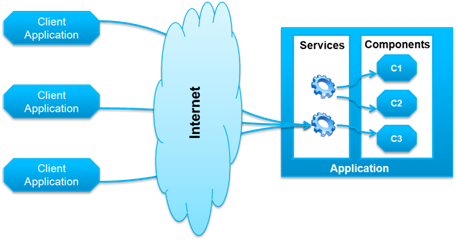
**5.1 Overview of System**

The Quota System and Scheduler modules are components of Virtual Labs 3.0. These modules serve as a means of managing resources for the Virtual Labs module to function as well as to maintain its usage by both the administrators and the students. 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 administrator and user to manage the resources they have or that the administrator wishes to create or modify.

****

**Figure 1: Multi-Tier Design**

Since our application logic for both modules is handled by web services, there is another architectural pattern involved: service-oriented design. 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.



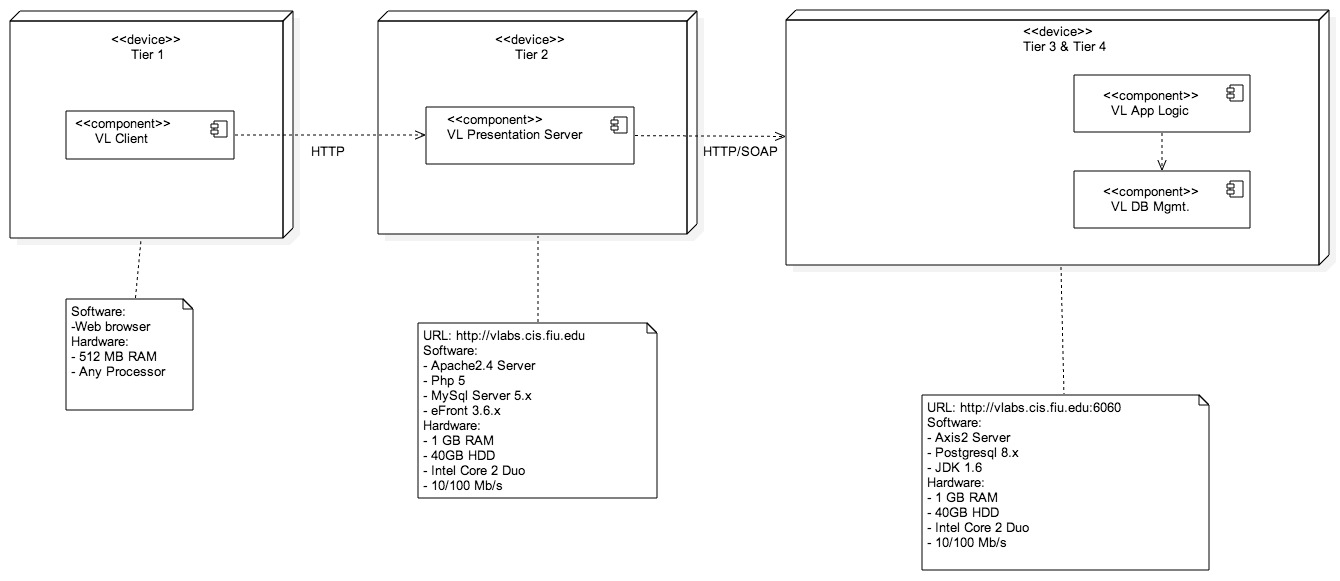
**Figure 2: Service-Oriented Design**

**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 the Quota System and Scheduler. 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 Quota System module has two main “objects” in terms of persistent data: A policy object for the setting up quota and a credit type object for assigning quota.

* **“Policy”**
  + *policyType*: the way in which the policy will be handled.
  + *assignable*: if it can be assigned
  + *quotaInPeriod*: the amount of time in the period
  + *daysInPeriod*: the duration of the period
  + *daysToRelStart*: how long until the policy is active
  + *name*: name of the policy, used to identify it
  + *description*: description of the policy, used to identify it.
* **“Credit Type”**
  + *name*: name of the credit type, used to identify it
  + *policyId*: id of the policy, used to identify the policy being used
  + *courseId*: id of the course, used to identify the course being used
  + *resource*: determines the type of assignment, Virtual Labs, Menoring, Certification

**5.5 Security and Privacy**

To briefly touch upon security and privacy for the Quota System and Scheduler modules

* eFront provides all users with protection via login.
* Each module installs schemas it requires on installation of the module.
* Each view is separated by its users’ role meaning only an administrator can view administrator options and vise versa.

**6. Detailed Design**

In this chapter a detailed description of the Quota System and Scheduler 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 Quota System and Scheduler module is divided into the four subsystems that have been previously discussed.

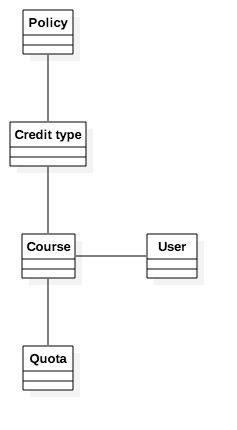
First, the Client whose purpose is to provide a Web interface that students can interact with to manage their own resources. This subsystem is in charge of the presentation and interaction with the user through an HTML page with a tab interface made using jQueryUI and functionality through JS.

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.

The Quota System and Scheduler modules, the Application Logic Server is a Java Web service that handles the logic of all the modules involved in the Virtual Labs 3.0 system. It has various skeletons that have methods to handle these request and it interacts with requests in a request and respond fashion.

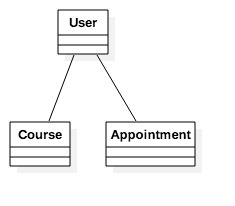
Last, the Database Management Server handles the persistent data and handles any database requests and services

**6.2 Static Model**

****

**Figure 4: Package Diagram illustrating Quota System**

The above diagram illustrates the interaction between the tiers in a high level sense. Users have courses they are a part of which has policies, credit types, and quota associated with it. Quota would represent the time that the users have to use their resources and the policies and credit types are what allows these quotas to be so flexiable



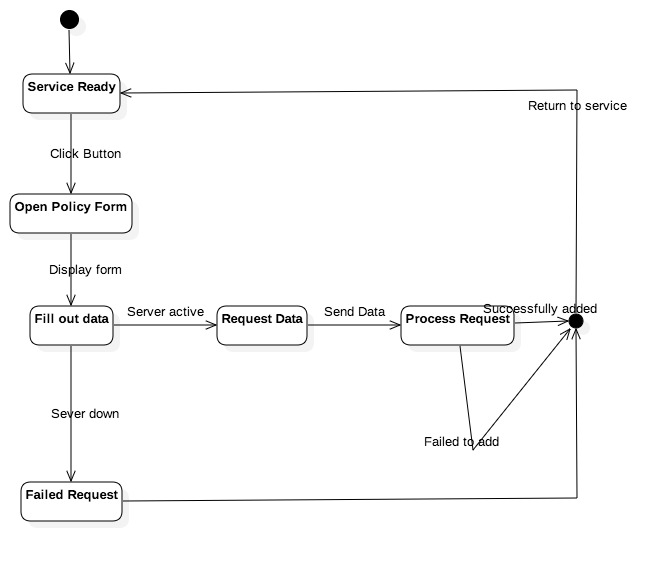
**Figure 5: Package Diagram illustrating the Scheduler**

In a similar fashion, Scheduler has its users with its courses and its appointments to better allow users to view their appointments.

**6.3 Dynamic Model**

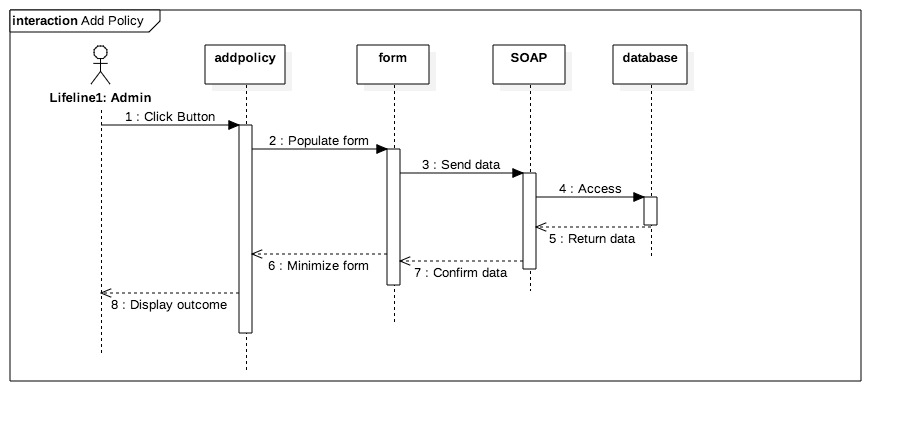
Included in this section are the state diagrams illustrate the control flow of adding a policy for the Quota System and for display the appointments in the Scheduler.

**Quota System**

****

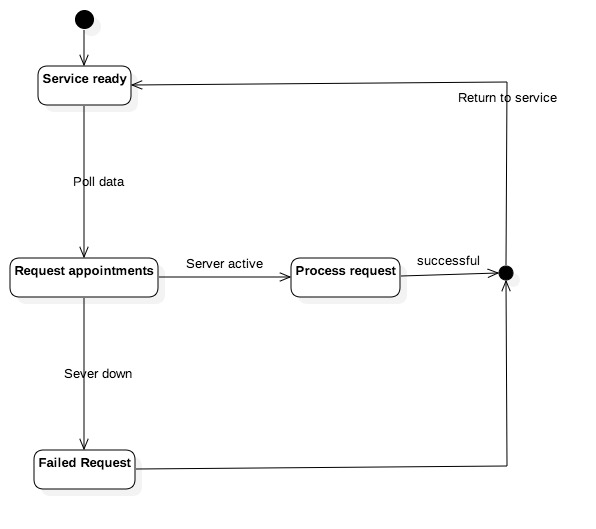
**Figure 6: State Diagram for adding or modifying a policy**

The above illustrates the flow of control when an administrator adds a policy. The administrator is informed on success or failure of the policy.

****

**Figure 7: Sequence Diagram for adding modifying a policy**

**vLabsAdmin**

****

**Figure 8: State diagram for displaying appointments**

The above state diagram illustrates the flow of control to display the appointments to the users.

**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

**policy.js -** This file handles the loading and modifying policies

* **function:** 
  + **AddNoExpPolicy();**
  + **AddFixedPolicy();**
  + **AddGradualPolicy();**
  + **AddMinMaxPolicy();**
  + **ModifyNoExpPolicy();**
  + **ModifyFixedPolicy();**
  + **ModifyGradualPolicy();**
  + **ModifyMinMaxPolicy();**

**credit.js –** This file handles the loading and modifying credit types

* **function:**
  + **AddCreditType();**
  + **ModifyCreditType();**

**calendar.js –** This file handles the loading and modifying appointments

* **function:**
  + **GetScheduledAppointments();**

**7. System Validation**

This chapter will go over what testing has been done on the Quota System and Scheduler modules to verify their correctness.

**7.1 System Tests**

Unfortunately due to time constraints, I could not properly test the functionality of the system as well as an automated test suite could. All testing was done manually and on each of the 4 major browsers, Google Chrome. Mozilla Fire Fox, Internet Explorer and Safari.

**Quota System**

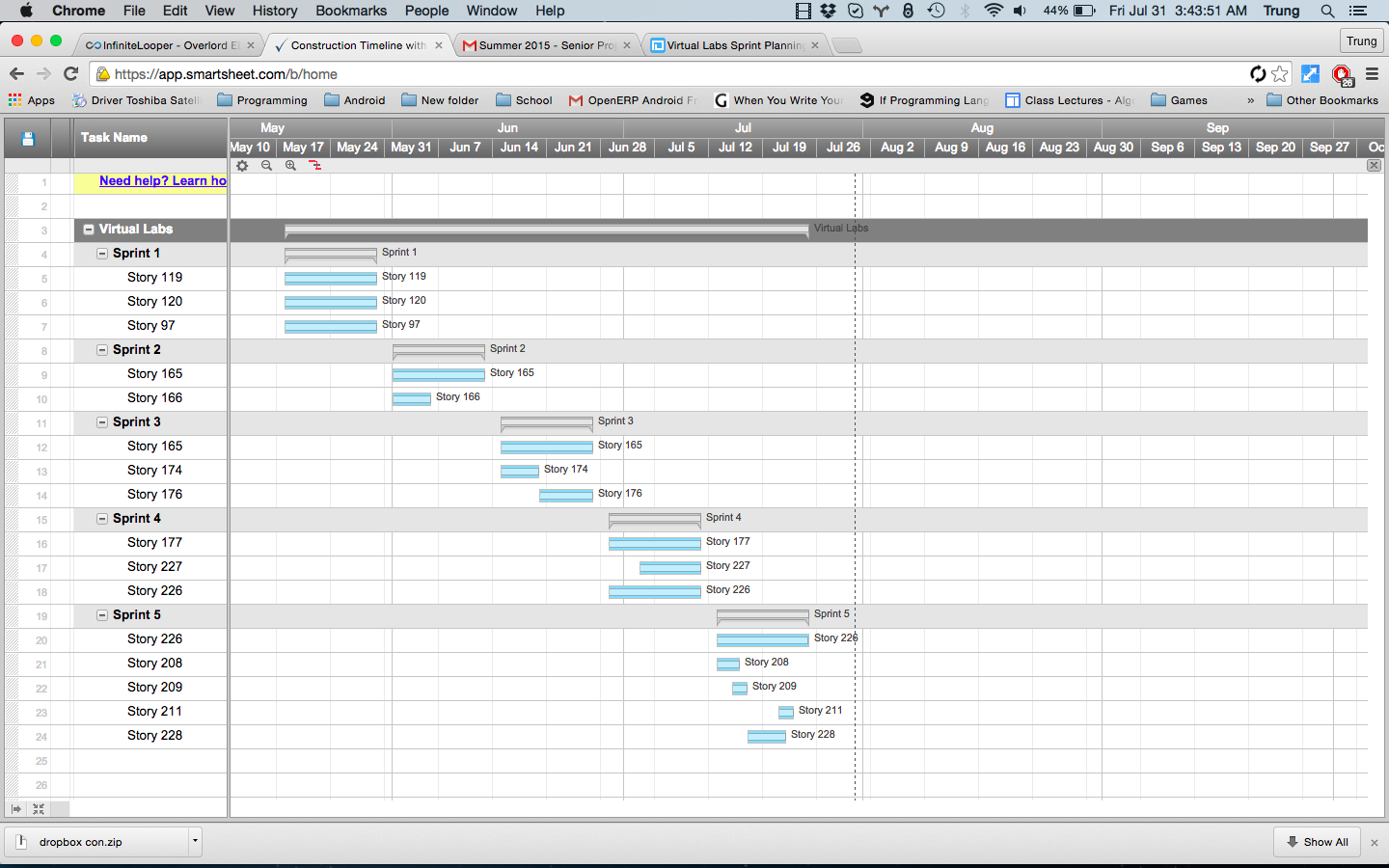
* **All:**  Functionality on each browser works as expected.

**Scheduler**

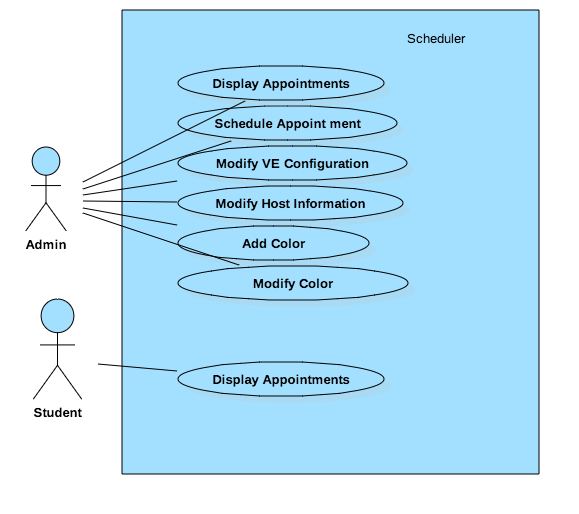
* **All:**  Functionality on each browser works as expected. **8. Glossary**
* **Virtual Labs** – Different virtual environment configurations designed for students to perform their lab assignments. It is composed of a collection of virtual appliances (also called virtual machines), which are connected 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.
* **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.

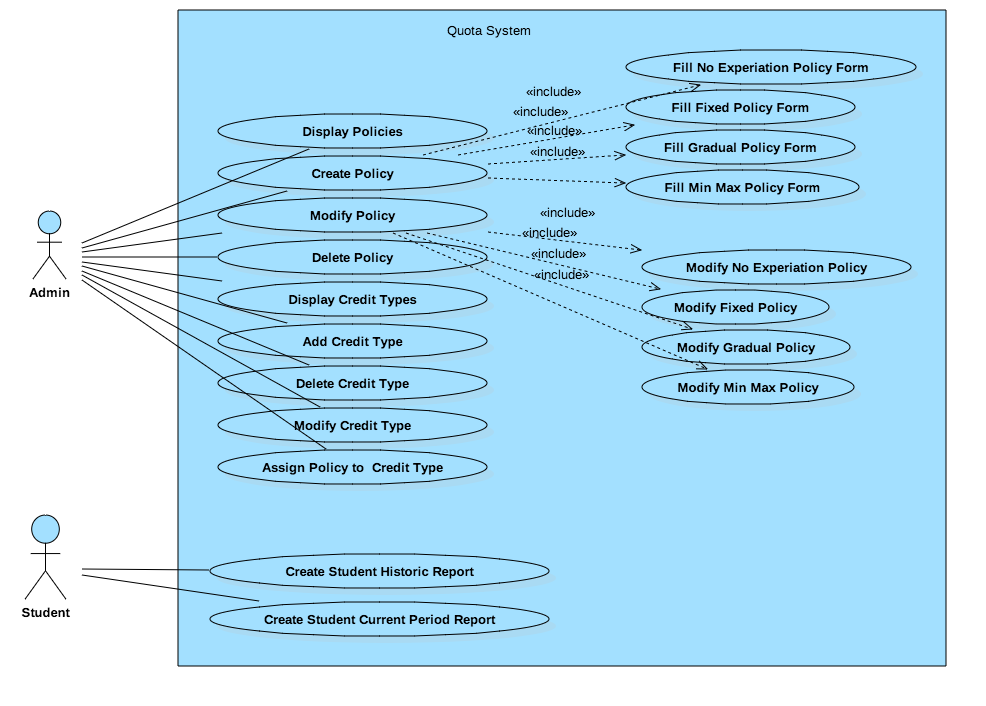
**9. Appendix**

**9.1 Appendix A – Project Schedule**

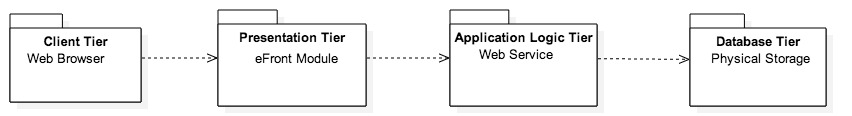


**9.1 Appendix B – Use Cases**

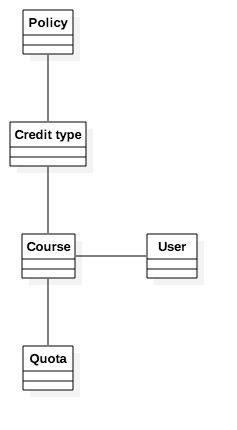
****

****

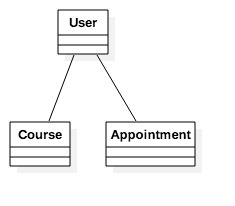
**9.4 Appendix D – Static UML Diagrams**

****

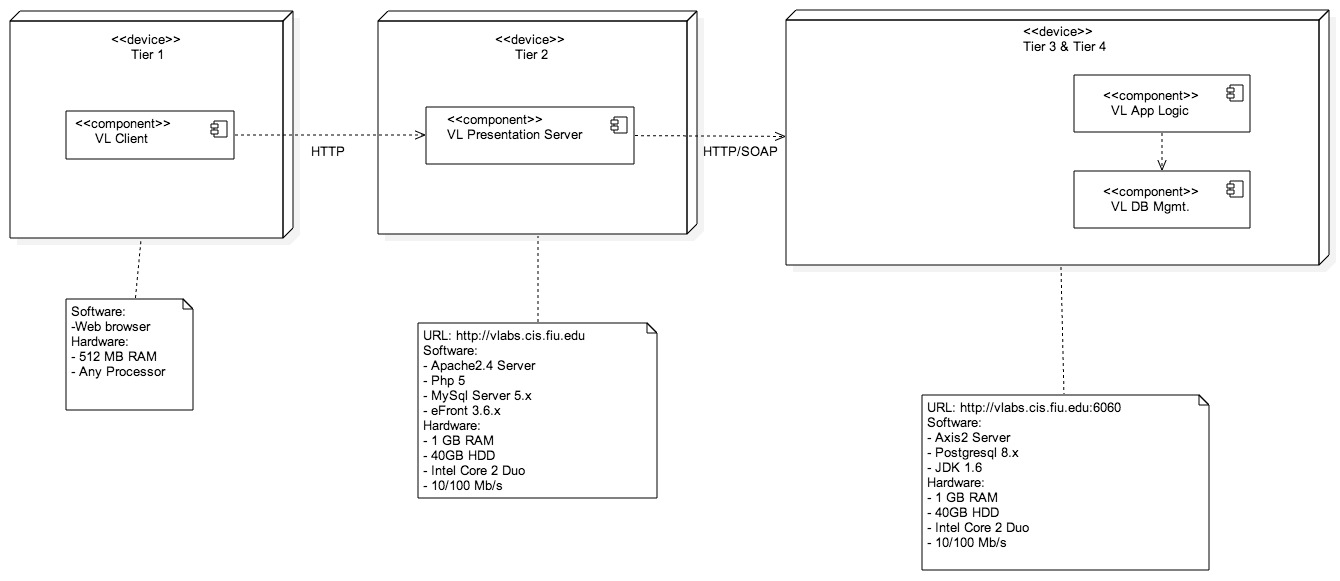
**Figure D-1: Package Diagram representing tiered logic**

****

**Figure D-2: Package Diagram representing persistent data of Quota System**



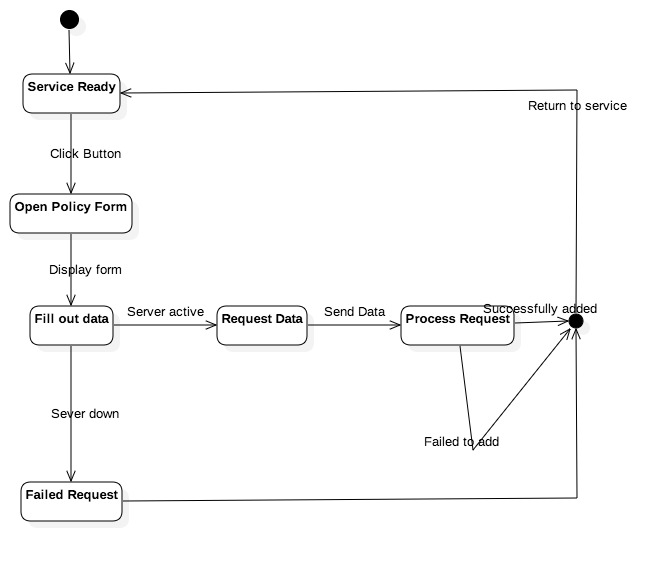
**Figure D-3: Package Diagram for representing persistent data of Scheduler**

****

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

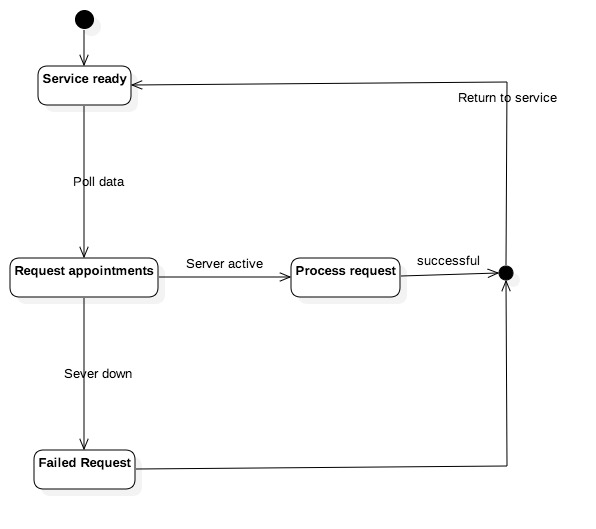
**9.5 Appendix E – Dynamic UML Diagrams**

**Quota System**

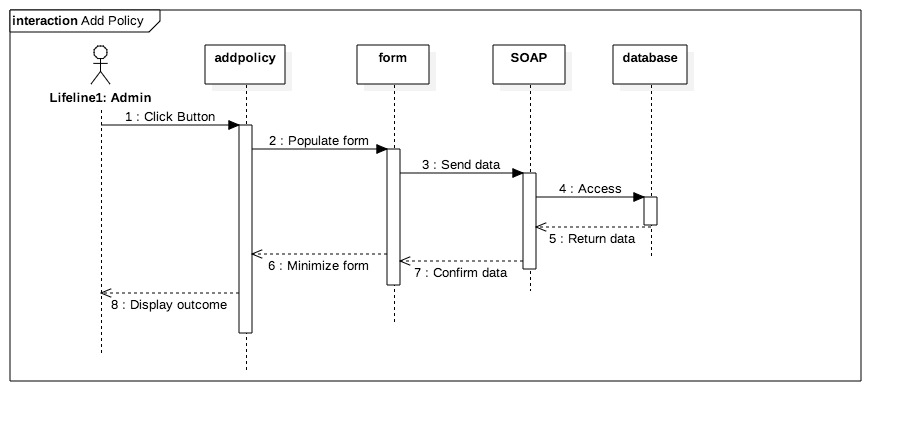
****

**Figure E-1: State Diagram for adding a policy**

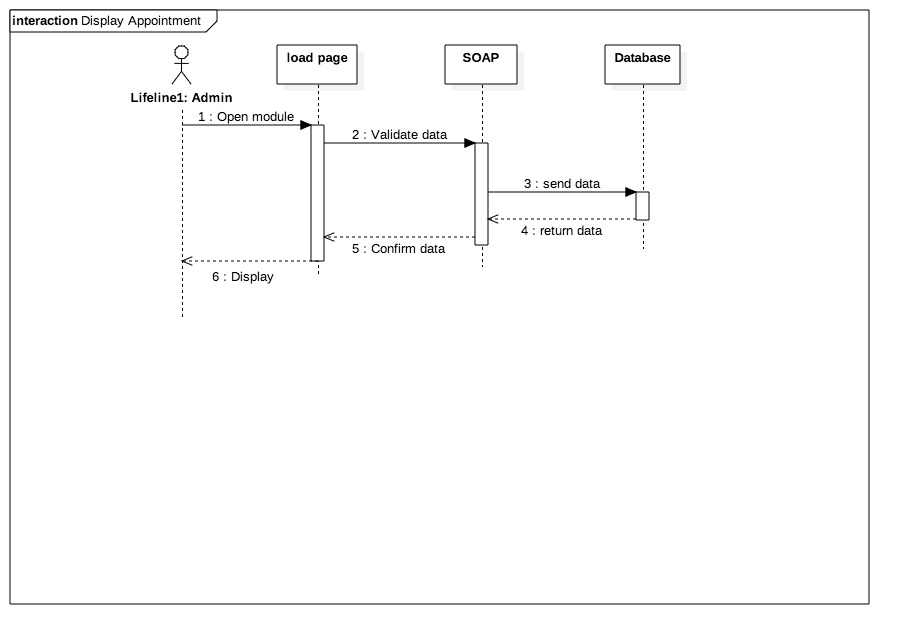
**Scheduler**

****

**Figure E-2: State diagram for loading appointments**

****

**Figure E-3: Sequence Diagram for adding a policy in the Quota System**

****

**Figure E-4: Sequence Diagram for display appointments in the Scheduler**

**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
  + Embeded 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 libvert 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?
  + Llooked 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 gucamole-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 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 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 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 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 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 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 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 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 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 done until the next scrum meeting?
  + Start debugging scheduler to being 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 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 calender
* What is planned to done until the next scrum meeting?
  + continue working on full callender
* 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 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 libvert 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 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 done since the last scrum meeting?
  + Met with the professor
  + Converted start/stop.py to use the libvert 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 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 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 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 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 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 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 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 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 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?

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 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