**ITMT 430 Spring 2019 – Sprint 04 Requirements**

**Total Points: 100**

13 items 5 points each (65) + 35 for deploy working

Scale ranking:

* 5 points - items are sufficiently described, displayed, and deployed
* 4 points – items are mostly described, displayed, and deployed
* 2 points – items are somewhat or irregularly described, displayed, and deployed
* 1 point – items are missing or inadequately described, displayed, and deployed
* 20 points for demo walk through of 2 use cases - This demo will be recorded via Blackboard Collaborate (inside of Blackboard) there is a document walking you through the steps to launch the recording and how to make it.
  + Use case 1: Upon a complete build from scratch, register for your site successfully as a user
  + Use case 2: Login as that newly created user and execute an essential operation to your site. (For instance, if it is a blog, post a blog entry, upload and tag an image, or place a recommendation – this will demonstrate the purpose of your work and purpose of your application). Do this twice.
* 15 points – I will run your build and access instructions located in your Readme.md file and I will attempt to replicate the content you showed in the above demo.

**\*\*\*Note:\*\*\*** Automated assumes all code, keys, and settings are built and set in the Packer build phase

It can be assumed that vagrant up and related Vagrantfile phase requires manual adjustment of the IP address ranges

**Project Base Requirements**

Each Project will have additional specific details per job to be delivered once project subject is determined and require you to explain your implementation and decisions in these categories: Each element here where applicable needs a git commit SHA and URL and or a Trello card

1. Language and framework of your choice (ITM 311, ITM 312, ITMD 361, ITMD 411)
   1. What programming language and Language framework are you using? (hint: html/css is not a language)
2. Operating System Platform of Choice (ITM 301, ITMO 456)
   1. Which Operating system and why was it chosen?
   2. Packages – list all additional packages installed
      1. Operating system packages such as .deb
   3. Language/Framework packages (python package, npm packages, java maven package etc., etc.)
   4. Implementation and Collection of Application Metrics and Monitoring
      1. Logs
      2. <https://blog.digitalocean.com/observability-and-metrics/>
      3. <https://www.digitalocean.com/docs/monitoring/resources/glossary-of-terms/>
   5. Not required for a grade, but it makes your team members and my life easier if you provide a destroy script that will destroy and unregister all of your Vagrant boxes.
3. Use of Data Store/Storage (ITMD 421, ITMD 411, ITMO 456)
   1. Database or similar storage technology
4. Data encrypted at rest (ITMS 448)
5. Database makes use of master/slave replication (~ITMD 421, ITMD 411)
   1. Schema creation
   2. Caching layer implementation
   3. Master for database writes
   4. Slave for database reads
6. Use of Responsive design (where applicable) (ITMD 361, ITMD 362)
   1. Explain what framework allows for responsive design in your project
   2. Give a screenshot demo of one instance of this element
7. Use of https (ITMS 448, ITMO 456)
   1. Self-signed certs
   2. Login authentication mechanism
      1. Describe how you are doing this.
      2. Describe how you are securing this.
   3. Explanation of security assumptions relating to:
      1. Firewall – list what ports are open and why
      2. Authentication keys – explain how they are being distributed securely
      3. Seeding of usernames and passwords – demonstrate with code snippets
      4. Pre-seeding databases/datastores with schema and records - demonstrate with code snippets
8. Use of user authentication (ITMD 361)
   1. Must use HTTP/webserver Session (This controls an authenticated user’s session)
   2. Different UI for Unauthenticated users
      1. Must have read/only features for unauthenticated users
   3. Different UI for Authenticated users
      1. Must have a user account management page (EDIT Page)
   4. Different UI for Administrative users
      1. Must have an administrative database dump and restore feature
   5. UI is modified per authenticated user via CSS
9. Creation of Dev Environment (local laptop), (ITMO 456)
   1. Must work according to specification and have accurate build and access instructions (how I get to your first page) in the root of the repo in the Readme.md
   2. Environment must be configurable via script pre-deploy
      1. No manual editing or installing
   3. Explanation of UI/UX testing methodology
   4. Demonstration of bug reports being filed, tracked, fixed, and closed via Trello cards and GitHub commits
10. Layout design (ITMD 361, 362, ITMM 471)
    1. Diagrams of site functionality need to match delivered features – images of individual page renders need to be in the diagrams folder.
    2. Diagrams of colors, fonts, and other usability features
11. Management of Visio (or comparable) diagram tool of work flow (ITM 301, ITMO 456)
    1. Need a diagram that shows the backend layout of all the components, Database/store, caching layer, Webserver, and other parts you may have and their connections overlaid.
12. Management of project progress (ITMM 471)
    1. Trello – correlate completed goals to **DONE** Trello cards and unfinished goals to in progress Trello cards
    2. ~~Slack -~~
    3. Development Environment – What development environments were used by the team members?
    4. GitHub - correlate completed goals to **GitHub** commits.
    5. GitHub Issues ~~resolve bug posts from UI/UX tester~~
       1. List all open bugs, closed bugs and who they were assigned to by the PM
13. Team must generate at least 15 real “test” user data that is inserted upon instance creation and proper data to test functionality of a system
    1. No system is ever used “blank” always fill it up with real data.

**Deliverable:** Create a folder called: **Reports** and create sub-folders namedafter the sprint **(sprint-01, sprint-02, sprint-03, ~~midterm~~, sprint-04, sprint-05, and sprint-06).** Within each folder place your report name the file: **report.md**

Explain and detail the 13 items above (use screen shots if need be).

This will be a Group submission the URL to the presentation on Blackboard by the Project Manager