

# Work Log

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## Rules we follow:

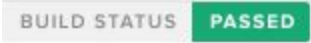
- Log everything or anything that makes sense or nonsense if you do anything related to Project coursework. This will be the single stop for the stuffs being done for the project work.
- Work any 3 days in a week for project

## WorkLog Info

## Vivek's log:

Project Sprint	Date (2018)	Vivek
0	09/13	<ul style="list-style-type: none"><li>- Refer Discussion log 1</li><li>- Created project repo; created &amp; updated few docs file ()</li></ul>

		- Have to send webex invites to team for further discussion
0	9/16	<p>- researched over task process manager in Android space. I believe this is possible, since there are already many apps out there in playstore.  <a href="https://www.androidauthority.com/best-task-manager-apps-for-android-342334/">https://www.androidauthority.com/best-task-manager-apps-for-android-342334/</a></p> <p>- my favorite and the one I use is <a href="#">EX Explorer</a>; but for our project i guess the end product should be something in combination of EX Explorer UI with <a href="#">System Panel 2</a> . I really love System Panel 2 UI. look at it. Its superb. I guess we may end up in doing something like this.</p> <p>- Process Management like ‘System Panel 2’ and Storage management like ‘ES Explorer’ but Process Management is our project scope.</p> <p>- thinking of android development (using Kotlin for Android), web application development (using Django)</p>
0	09/20	<p>Had meeting - refer meeting log doc to review in depth - 09/20</p> <p>ShortNotes  Decisions</p> <ul style="list-style-type: none"> <li>- website app - java + spring MVC stack</li> <li>- try to set up the codebase before 27th sep</li> <li>- design document draft on 22nd sep</li> </ul> <p>Upcoming Task</p> <ul style="list-style-type: none"> <li>- vivek &amp; neha to do research on spring framework to achieve objective</li> <li>- deeksha research on mvc and do a knowledge transfer to us</li> </ul>
0	09/21	<ul style="list-style-type: none"> <li>• Design Document Planning Sync up</li> <li>• Worked on the design document for the project we are about to complete</li> </ul>
0	10/10	<ul style="list-style-type: none"> <li>• Completed the design document to be delivered tomorrow.</li> </ul>
1	10/14	<ul style="list-style-type: none"> <li>- created the project board in github</li> <li>- created issues to be resolved for the project</li> <li>- pushed the code to repo on issue - maven setup for the project</li> <li>- pushed code to repo to pull low level data from system</li> <li>- have to work on pulling proper meaningful required information</li> <li>- assigned two issues to the team mates for them do environment testing - instructions to do that got updated</li> </ul>
1	10/15	- pushed few more codes related to the requirements to github
1	10/18	Everyone decided to just learn the spring; pull required info using sigar and update in real time in the UI website
1	10/20	<ul style="list-style-type: none"> <li>- created few more tasks in the issues tab and updated the project scope</li> <li>- planned on how to plan for few more tasks</li> </ul>
1	10/23	- created a branch in github and pushed code there to hold all the required metrics to be pulled from system

		- have to design the db (one among my favorites) and stuffs after configuring the sqlite :)
1	10/24	- pushed code for SQLite configuration for the project to github - will be designing the db and all stuffs except spring boot I guess. Lets see.
1	10/25	- configured the initial setup of springboot environment using maven and pushed to github. - able to view the output :) - its tricky initially; but its doable. Excited to enter spring boot world - "Hello Spring Boot World! Will be deploying a Process Monitoring Application soon using you!!" <- pgm output - Updated the design document - Hated spring boot initially, but it seems like it is really doing lots of heavy lifting; looking forward to see how good this is going to be! - pushed code backbone for the sqlite db configuration to the web app. - able to successfully establish the connection. Have to do crud operation on it in spring boot world  - side note: <a href="https://mvnrepository.com/artifact/org.fusesource/sigar/1.6.4">https://mvnrepository.com/artifact/org.fusesource/sigar/1.6.4</a> - have to use this for sigar since few other repo link are not working. - <a href="https://blog.lakmali.com/2011/12/manually-install-maven-dependency.html">https://blog.lakmali.com/2011/12/manually-install-maven-dependency.html</a> - just in case
2	10/26	- setup the next project sprint 2 with required objectives (view these in the projects tab of the github link: <a href="https://github.com/vivekVells/TaskProcessManager/project">https://github.com/vivekVells/TaskProcessManager/project</a> ) - created user stories in the issues tab of github - planning on when to work on this and which tasks to prioritize - planning how to work for test approach document - created Project Deliver & Response file to keep track of what was being delivered to during the demo and what was the response received.
2	10/27	- created test approach document and included few spring boot specific testing that will be executed. - have teammates sync up meeting to complete
2	10/28	- failed in configuring CI pipeline setup using semaphore and also using codefresh. The only reason this is failing is because the pipeline pgm is unable to find the pom.xml file. "POM file TaskProcessManager/version1/maven_use/eclipse_processmonitor_ver1/spring-boot/process-monitor/pom.xml specified with the -f/--file command line argument does not exist" didnt work. Have to figure out a fix for this one. - I guess I have to use cloudbees with jenkins. - fixed above issue by using relative path mvn ./version1/... clean install :) CI pipeline is setup now 
3	11/13	Designed DB. Have to tc of lots of stuffs. Completed few. Have to complete soon.
3	11/14	Modularizing the code to perform the db crud operation. Have few plans accordingly. Modularize code -> test suites -> db design -> push those desired values into DB (CRUD) -> spring boot entry [pull data from db & show in website -> test suite in spring boot]





		<p>webjar delivery performance.</p> <ul style="list-style-type: none"><li>- created few bugs, spike stories</li></ul>
4	11/28	<ul style="list-style-type: none"><li>- alright!!!!!!!!!!!!!!!!!!!! Its done. Referencing static files and getting html responses when navigated to end points. Have to now work on db design. Then pulling data from there to show in UI. that will be next priority.</li><li>- hopefully I finish as per planned before the demo! Aw man! This is tough. I thought of doing lots of stuff; but I think I am going to under-deliver!!! Aaaaaaaaaaah!!!!</li><li>- implementing the swagger integration. Better way to have the REST API documentation. Nice!</li><li>- okay done for the night. Its time to sleep!</li></ul>
4	11/28	<ul style="list-style-type: none"><li>- lots were done.</li><li>- created various tasks today to work on.</li><li>- fixed test suite which was having issues when run on different machines. Have to make a follow up on running on linux machine.</li><li>- sigar.jar &amp; .dll file dependency issue have to handle. The hack right now is to use the environment variables.</li><li>- discussed with testing team about the scope and project expectations professor might have for us</li><li>- worked on few cool tasks - 10 issues were closed today. Around 11+ pull requests were done.</li><li>- its funnier and felt different when wearing code reviewer hat and reviewing my own code. But i did as the role as close as possible I believe. I did returned few PRs back to the code phase. Its a nice experience.</li><li>- its cool to view the packaging and execution of the .war file on different machines. End-client usage of these delivered files are simply amazing. Very simple. Just do java -jar path/.war thats it.</li><li>- working on rest api end points. After this, crud ops.</li><li>- to verify system info <a href="https://wiki.windward.net/Returning_Users/Cross-Product_Articles/Determining_the_Number_of_Cores_for_Your_System">https://wiki.windward.net/Returning_Users/Cross-Product_Articles/Determining_the_Number_of_Cores_for_Your_System</a></li><li>- <a href="https://kb.vmware.com/s/article/1030067">https://kb.vmware.com/s/article/1030067</a></li></ul>
4	11/29	<ul style="list-style-type: none"><li>- port usage fixed. Tomcat server by default searches for 8080 port. But if any other application is running over it, it fails &amp; spring boot appln crashes. To handle this issue either have to hard code a port that we are very sure which will never be used by other appln or use random assignment of available ports (this is what being used and easier. Just set server.port=0 and SpringBoot takes care of assigning a free port. Although, there came a bug along the way. I did not expect this would happen. Management port was assigned 9001; but for some reason this 9001 was being assigned to server.port by random which is not cool. Have to handle this issue. Generally using random port assignment seems to be useful when going microservices - based on few reviews)</li><li>- Rest API endpoints for Version block is done very well. Now code is well organized and looks neat. So beautiful. The more modularized, the better. Have to handle static web responses though.</li><li>- many tasks were being opened. New tasks. New issues to handle. Nice.</li></ul>

		<p>- working on selenium web automation for this project. Selenium + python binding based. Laid the file structure in the repo and simple ui get request python file. Have to implement this one too.</p> <p>Today 29th was the demo day. Testing suite, SCM commit review, bug tracker review.</p> <p>- very curious for this one since we are about to complete the coursework. Nov 6th is the final project demo day. No excuses. Only delivery accepted.</p> <p>- it went well and I am glad the works payed off. Its what we as developers get things done besides appreciation. Glad to get it from professor who have more than 17+ years of experience in this cs field. Commented again that the project work shown was really good so far. Impressed with the best practices and efforts being done for this project work. And also expectations being exceeded. Very glad to hear.</p> <p>- Still. Have to complete few stuffs. Planning to do few things - deploying this project in a CSP is one among the plans I had for this project. Not sure whether the time frame lets this happen.</p> <p>- got few reviews to be corrected for this project. Code practices and few suggestions. Solid code review. Also, its true. It would be cool if an issue task is being created automatically whenever the build fails. I have never did this. It would be cool to check it out. Hope atleast this gets completed along with the project scope.</p> <p>Have to revisit everything now. Prioritize tasks. The tech was great and got dragged into few other time-consuming learning stuffs. But have to deliver the project on time. Will make plannings for 4th and final Project Sprint on Nov 6th.</p>
	11/30	<p>- Worked on presentation content</p> <p>- planning for coding works; have to sync up with the testing team.</p>
	12/1	<p>- got stuck in a loop. Could not figure out how to insert data into the database using the variables in a pgm. Got json error response too.</p> <p>- revisited the database design concept. Tried to use h2 database and could not proceed further.</p> <p>- trying to figure out what went wrong!! Omg. this is getting my nerve. I am going everything properly. Its working fine in different project but not this one. What is wrong here. hm.....</p>
	12/2	<p>- after a long struggle; in regards with db entry, have to use @PostConstruct annotation. in regards with DB design -&gt; found out that i am an idiot not a stupid. Did an obvious error. Too much obsessed with H2-console dashboard and thought nothing was working fine. Truth is everything was working fine properly. Its just the single line that makes the data viewable in the console dashboard. Face palm. Whyyyyyyyyyyyyyyyyyyyyyyyyyyy,..... Time wasted a lot on this one. Issue: <a href="#">Issue: 83 in github</a>. JDBC config url should be: jdbc:h2:mem:testdb not something else like -test or so on. Awwwww</p> <p>- alright after this everything is going awesome. As per expected.</p> <p>- created few tasks and worked accordingly. Assigned few tasks to the testing team</p> <p>- completed version block: DB design, backend filling on start of the app. CPU usage block: db design done, rest end points done, data fill on load of the appln done.</p> <p>- gotta proceed with filling of data on loop x seconds or so. After figuring this out. Have to figure out a way to use these entries to the thymeleaf and show in the desktop. Omg. i dont know how much time its going to take.</p>
	12/3	<p>- okay finally. This scheduling of tasks is done. Gaaawwwd!!! That h2-console dashboard took a lot</p>

		<p>of my time and made frustration incremental update! What!! “Frustration incremental update” is there even a sentence. I don't know. You tell me!</p> <ul style="list-style-type: none"><li>- created few tasks for presentation related stuffs and next steps to reach the project completion done.</li><li>- this is fine. I feel this is a good progress. Little baby steps at a time. Completed a lot of stuffs if looked back but wait! Still lots to finish.</li><li>- okay. Check check! - values are stored in the db as per expected. Now. try to make db modularized &amp; make all CRUD operation happening internally using the REST endpoints so that there won't be much re-work in future and application would be more reliable and stable. Okay. say both are done, now, have to pull desired data and show in the UI in real time that updates after a period of time. Awesome. After this, have to use D3.js or such data VI tools to adorn the results. So far so good.</li><li>- Have to work on ajax call thingy</li></ul>
	12/4	<ul style="list-style-type: none"><li>- Wow, this took sometime to complete. Completed the ajax call for version info block partially for now. Laid out the home page of the application that uses thymeleaf and ajax calls. This makes me very happy as all I have to do is just show the cpu usage in the same way I did for this one. Almost reaching there. I wish I could complete the graph that changes in real time along with this one. Will work on remaining metrics like Network, Memory, Performance when possible (I dont think this can go for this project sprint).</li><li>- All possible rest endpoints for this application can be found in one place. “/endpoint”</li><li>- time stamp reference on all the website done and webjar reference being updated.</li><li>- complete version block info is now available in the home page. Its working fine. Waiting for the testing to test and I should also check this out in Linux and other windows machine too.</li><li>- had a stand up meeting - discussed on everyone’s task and what’s the progress being made. Collaborated on presentation draft.</li><li>- reaching there. Almost. Just few steps. Waiting for Dec 6th :)</li><li>- have to work on cpu block ajax in real time in UI &amp; then chart integration. That’s it. After that few website refurbishment stuffs. Gotta take care of DevOps stuffs too. Hmmm..... Awww man....</li></ul>
	12/5	<ul style="list-style-type: none"><li>- started with single ajax call to pull the data and show in UI - total cpu usage</li><li>- logos &amp; icons updated</li><li>- now to the big part, auto refreshing of the contents in real time in the UI by using more ajax calls - able to figure out how to do it and completed it.</li><li>- finally a single row auto updation got completed and about 4 rows are being auto refreshing properly. D3 integration wont be possible</li></ul>
	12/6	<ul style="list-style-type: none"><li>- endpoints of the project got updated.</li><li>- Have to just complete the final few modifications over the presentation.</li></ul> <p>Final Project Delivery day!!!</p> <ul style="list-style-type: none"><li>- it went great. Professor appreciated about the delivered project; feedbacks on project demo, presentation. This is the day to which I waited for. Still there are lots of scope for this project. Want to implement microservices, docker orchestration in cloud, use a front-end framework. Very impressive project outputs from other teams too. Especially the data visualization feature in</li></ul>



JavaFx shown by other team members. I never knew its this powerful.

I believe the whole point of doing this project is to experience each professional roles in the SDLC process, team collaboration & professional skills improvement.

And, this had been a productive ride and learnt a lot as being an Architect, Scrum Master, Manager, Software Engineer, Web Developer, DevOps Engineer for this project. Got good exposure of project management being a manager & scrum master, and a devOps engineer handling the software package delivery. I never had that much opportunity to handle such roles.

I have been a software engineer so far. Got a chance to explore the Architect & Developer world during my Internship at Express scripts last summer 2018. Worked along with awesome team, learned a lot. Got exposure to Architectural best practices. Learnt best coding practices as Software Engineer/Web Developer and I had an opportunity to work along with my team mate and build the foundation of a Developer Portal website from scratch during the internship. It's worth it. This helped me to shape the project from start. Planned before taking this coursework itself to simulate the environment and explore different roles of the SDLC process in this project. Have used all the skills learnt & experienced in real time over here.

Being a software engineer for this project was awesome. Very much interesting to build a productive tool from scratch. The plannings, the pain, frustration, disappointments, "Why God! Why me! Why is this not working - moments!!!!", happiness, **realizing Agile Manifesto #7 - "Working Software is the primary measure of progress"**, getting appreciations and sharing the knowledge with peers --- its all worth it. Can do in a repeat loop mode! But still wanted to implement few more features to the project but because of the time frame, it didn't happen. I was looking forward to implement microservices and cloud deployment. Gotta do it. But never had a chance to be other than this role. So, I tried to explore few other roles. Trying to exercise the different roles people do in an organization. Roles experience: a Manager, a Scrum Master & a DevOps Engineer.

Being a Manager & Scrum Master needs next level of people skills - architects too; have to clear the roadblocks to the team; frequent catch ups; prioritizing the tasks; plannings; follow ups; discussion among the team while taking an important decisions and meet the people's deliverables somewhere in a threshold level since the thought process is totally different that includes each individual's expectation level too; what you think is important may or may not be important to others; lots of factors are involved here. Very interesting job to do.

DevOps role seems very very awesome too. Integrated the CI pipeline for this project. Used Semaphore CI instead of jenkins; this seems easy to set up. Used Docker for the project. Tried my best to deploy the app in heroku; but didn't have enough time frame. Want to use any CSPs for this project, perform orchestration and stuffs. Very promising role. Everything is becoming cloud now a days.

All in all. This is great. Solid efforts. Supportive, open-minded & collaborative team mates. Hope to get a chance to build something useful in future! Cool!

## Deeksha's Log:

Project Sprint		Date (2018 )	Deeksha
0		9/19	<ul style="list-style-type: none"> <li>- Researched on Design Document.</li> <li>- Gone through the details and process of task manager functionality.</li> <li>- Spent time on technologies that I should know before starting this project.</li> <li>- @Vivek as you mentioned I have done some research on ES explorer and system panel 2 and I liked it too.</li> </ul>
0		09/20	<p>Had meeting - refer meeting log doc to review in depth - 09/20</p> <p>ShortNotes</p> <p>Decisions</p> <ul style="list-style-type: none"> <li>- website app - java + spring MVC stack</li> <li>- try to set up the codebase before 27th sep</li> <li>- design document draft on 22nd sep</li> </ul> <p>Upcoming Task</p> <ul style="list-style-type: none"> <li>- vivek &amp; neha to do research on spring framework to achieve objective</li> <li>- deeksha research on mvc and do a knowledge transfer to us</li> </ul>
0		09/21	<p>Design Document Planning Sync up</p> <p>Worked on the design document for the project we are about to complete</p>
0		10/5	<p>Had a meeting regarding design document</p> <p>Worked on changing things in design document.</p> <p>Continued learning spring boot</p>
0		10/10	Completed the design document to be delivered tomorrow.
1		10/18	Decided to just learn the spring for those who do not know it; pull required info using sigar and update in real time in the UI website.
1		10/20	Have gone through the issues which are raised in github and worked on it.
1		10/21	planned on how to plan for few more tasks.
1		10/23	Gone through the code pushes in the github and done background work. Started making draft for the test approach document.

2		10/27	<ul style="list-style-type: none"> <li>--Started new sprint and going through the new user stories</li> <li>-planning how to work for test approach document</li> <li>- created Project Deliver &amp; Response file to keep track of what was being delivered to during the demo and what was the response received.</li> <li>- working on github usage.</li> <li>-Sync up with team members for more ideas for the presentation.</li> <li>-created test approach document and included few spring boot specific testing that will be executed</li> </ul>
2		10/30	<ul style="list-style-type: none"> <li>-Spent time in understanding CI pipelining.</li> <li>Got required information from the team mate</li> <li>Tried CI pipelining faced issues and could not resolve it should work on it more.</li> <li>-Has lot more to learn</li> <li>- will be working on selenium with python web automation</li> <li>- Gained knowledge on Spring boot.</li> <li>- working on test approach document</li> <li>- Wrote the test cases to be used in our project.</li> </ul>
2		11/1	<ul style="list-style-type: none"> <li>- merged the pull requests and working on many other stuffs.</li> <li>- Spent time on issue tracker in understanding the issues.</li> <li>- Gone through CI pipeline issues.</li> <li>- could able to clear the issues which I faced</li> <li>- made changes in the test approach document</li> </ul>
2		11/5	<ul style="list-style-type: none"> <li>- Ground work on selenium and python as it is new to me</li> <li>- checking the new code pushes and working on the issues</li> <li>- worked on the assigned tasks</li> <li>- reproduced steps to run the application on local host and verified the working.</li> </ul>
3		11/12	<ul style="list-style-type: none"> <li>- Keeping track of everything which is needed for the next presentation.</li> <li>- Making sure that the test suites are running</li> <li>- Checked mvn builds and reported few issues in the issues tracker.</li> <li>- Raised few bugs and assigned tasks to other team mates.</li> </ul>
3		11/17	<ul style="list-style-type: none"> <li>- Learning curve has increased need to focus more on the concepts.</li> <li>- Worked on the assigned tasks and trying to complete them on time.</li> <li>- Going on thanks giving break will continue after coming back</li> </ul>
3		11/19	<ul style="list-style-type: none"> <li>- Discussed about the project status with the team mates and noted down the things to do.</li> <li>- Will be coming with few more things before the next deliverable</li> <li>- Issues are continuously raised and had less time to go through it but just had a chance to see the new things that are being pushed in the github.</li> </ul>

3		11/25	<ul style="list-style-type: none"> <li>- Very delayed. Entered into new sprint</li> </ul> <p>Started working on issues tracker to raise more issues as most of the coding part is done and the code pushes are also done. Working on raising bugs. Be ready for the presentations gather the things which are to be known from the team mates.</p>
3		11/27	<ul style="list-style-type: none"> <li>-Working on testing the application</li> <li>- making sure that the cpu info which is being pulled is as expected</li> <li>- Confirmed that everything is working as expected.</li> <li>- Found few bugs and raised them in the tracker</li> <li>- Had gone through the code and still clean up is needed.</li> </ul> <p>Learning Selenium with python.</p>
4		11/29	<p>Ready for the code review presentation Code commits are up to date and tested the application manually Reviewed the test suite functionality. Added few more bugs to the issue tracker Got to know about swagger implementation it is very interesting to know new concepts</p>
4		12/2	<p>Started writting test scripts using Selenium python. Getting familiarised with the concepts. Code freeze is not yet done so the test scripts may have to be changed as per the need.</p>
4		12/3	<p>Continued writting test scripts Working on few of the issues raised Found few more bugs and raised them in the issue tracker Pulled recent pushed code and worked on it Should be ready with the scripts by thursday morning(12/6) Code changes are still being done and lot more to be done by to night so cannot work on the actual code till to night.</p>

### Neha Log:

Project Sprint	Date (2018)	Neha
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0	9/15	-Done some research regarding task manager application. -checked a linux task manager prototype -went through the requirements of the design document draft 1 -ilearn -resources-mitopen courseware-week 6
0	09/20	Had meeting - refer meeting log doc to review in depth - 09/20 ShortNotes Decisions - website app - java + spring MVC stack - try to set up the codebase before 27th sep - design document draft on 22nd sep  Upcoming Task - vivek & neha to do research on spring framework to achieve objective - deeksha research on mvc and do a knowledge transfer to us
0	09/21	Design Document Planning Sync up Worked on the design document for the project we are about to complete
0	10/10	Completed the design document to be delivered tomorrow.

## Some Cool things about this project

### Completed

- SDLC process experienced
  - Architectural Design
  - Agile Methodology
  - Following best coding practices
    - SCM - GitHub - Code reviews, branches, issues tracker, kanban board, release branch
- CI/CD usage - Semaphore CI used
- Swagger API Documentation
- Webjars being used
  - WebJars are client-side web libraries packaged into JAR (Java Archive) files. Many of you have used CDN or even Bower/NPM to load web dependencies, but there is another way (and a nice one). With WebJars, you can explicitly and easily manage web dependencies in your applications, your build tools will be aware of your web libraries versions, and everything is available in Maven Central.

Reasons: But how can one member of your team easily be aware of the JS framework

version that you use? How can one update it? Will it be easy? How can you be sure that the code copied in your project has not been modified?

## Planned / Future Enhancements

- Scaling up & delivery of this web Application to everyone by using Cloud CSPs
- Developer Portal: Since this project is completely REST API based, planning to allow other developers to leverage the app by accessing the apis and creating their own cool stuffs
- Creation of issues automatically whenever build fails
- Usage of Docker for this application - **“Hot Deploy”** concept tryout
- Use any Front-end framework
- Do any Data Science related info

----- End of Document -----