

WMU Cohorts Project

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TPS Report

2/4/19

Tasks:

Name	Description	Time	Risk	Assignee	To be completed
Fine tune Optaplanter for best results	Modify score change restraints, time spent, and number of solutions	1 hour	1	Alex	2/9/19
Work on Presentation/P ractice Presenting	Make changes suggested by Kapenga and the class	1 hour	2	All	2/18/19
Add Documentation	Restructure repository to represent new optaplanter solver instead of brute force C program	1 hour	3	Jake	2/11/19
Create connection between optaplanter and webapp	Create RESTful API for web app to call and trigger optaplanter	2 hour	2	Grant	2/11/19
Create connection between Optaplanter scheduler and database	Create JDBC connection between scheduler and database to add schedules once they are created	1 hour	2	Alex	2/11/19

Stories:

Name	Description	Time	Risk	To be completed
Generate Schedules	Create viable cohort schedules based on parameters	1 weeks	1	2/11/19
Create Front End/UI	Create a front end usable to WMU advisors	3 weeks	2	2/25/19
Create Database	Create Database to store requirements and schedules	2 weeks	2	Done
Allow adding new criteria with plugin system	Make it easier for people to add ranking criteria	4 weeks	4	As Time Allows
Get AWS or WMU Server set up to run project	Work with Dr. Tsang and OIT to decide which is best and get server set up if necessary.	4 weeks	2	3/1/19

Past tasks:

Name	Description	Resolution	Assignee	Completed
Add Section limitations to Branch and Bound alg	Add a limit to which sections a cohort can sign up for based on section name in final attempt to use branch and bound	Changes made, but did not improve the performance significantly	Alex	1/19/19
Confirm	Schedule a	Met on 1/24 and	Alex	1/21/19

meeting time with advisors	meeting for the week of 1/21 to discuss progress and get feedback	discussed progress. Plan to meet again next week		
Final branch and bound attempt	Run the branch and bound with section limits on test server to see if it is viable (Kill after 72 hours)	Ran with little success over previous	Grant	1/20/19
Get course limitations document from advisor	Still waiting on limitations from Diana	Got document and integrated into course reqs	Jake/Grant	1/18/19
Optaplanner Research	Do further research on Optaplanner, and figure out how to delegate and integrate it.	Got info and successfully implemented it	Jake/Grant	1/19/19
Open Source Research	Look for more alternatives to Optaplanner	Found 1 stochastic alternative in C-RAN with hard/soft reqs	Alex/Jake	1/19/19
Implement OptaPlanner	Write java program to schedule cohorts using optaplanner	After spending significant time troubleshooting, we got the planner to work, generating schedules for all cohorts	All	1/31/19