RA Schedule project

## INF397a - FullStack technologies

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### **Documentation**

Purpose:

Our application’s goal is to make the RAs and Resident Directors’ communication automated, faster and easier. The application should collect information about hours that RA’s take on duties and then by pressing a button automatically send that information in a concise format to the hall director.

Technologies used\*:

ASP.NET Core for the back end

NUnit Testing Framework for testing

Microsoft Azure for Deployment

SQL server (Entity Framework) for Database

Azure Functions and Azure webHooks for Continuous Integration

Jquery and HTML for the Front End

Git and GitHub for SourceControl

The technologies we tried to use changed throughout the development, since we had almost no previous experience in web technologies.

We decided to go with Microsoft technologies, since we thought they have a modern approach for development, separation of concerns, good documentation, etc.

Looking back, we figured that using ASP.CORE was not the best idea, since the technology is new and there is almost no community support. Sometimes documentation is unclear, and most of the functionality from the older versions of .Net Framework is not supported.

In the beginning we tried to use Mongo DB(we wanted to try something new), but we found it was very difficult to integrate. Again due to the lack of experience and time, we decided to change to EF, since it goes by default with asp.net.

Agile Processes:

We implemented most of the agile methodologies during our work. We cannot say that we used Scrum or Kanban particularly,(due to the short period of development), but we have used some of the applied methods. We emphasized mainly on pair programming since we have different levels of experience and this was the best system to share knowledge. We can say that we implemented some of the Scrum approaches we gathered every day, discussed what we had to do for the day, we had something like retrospective. We have been working of small chunks of the project, trying to improve it, and then adding functionality gradually.

We were working all the time in a coworking space (Skapto 2 Lobby), and we were using pen and paper to write user stories and what we are doing.

Development Processes:

Our design process was prototype driven. Since we found troubles in all the stages, we have been striving for minimal viable product and then updating and adding new features.

Activities:

* Researching about using Git and gitHub
* Researching, installing, implementing MongoDB
* Analysis and Design for requirements
* Researching, implementing, practicing with EntityFramework
* Writing HTML and CSS files for front end
* Writing Jquery
* Researching and working with MVC (Model, Views, Controllers) Model
* Deploying the project to Azure
* Researching how to set up continuous Integration
* Setting up continuous integration
* Modifying azure function (node.js based automation script) to send a custom notification to slack
* Writing tests
* Writing documentation

Description of project:

**Models:**

**AccounView –**

**ManageView –**

**Servises –**

**Controllers:**

**AccountController –**

**DutiesController –**

**HomeController –**

**ManageController –**

**TakeHourController –**

**Views:**

**Account –**

**Duties –**

**Home –**

**Manage –**

**Shared –**