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CS 250 Software development lifecycle

In modern day scrum team there are various roles and each play a vital part in the

software development lifecycle. The scrum teams main goal is to take an idea, create it using

software and get it shipped. The once popular waterfall methodology placed a large amount of

time/emphasis on the front end of the development process. Which included gathering

requirements and focusing meticulously on the design. In the agile methodology the project is

broken down into “Sprints” which means the timeframe of gathering requirements, design,

develop, test, release and finally receiving feedback is condensed. Agile vastly speeds up the

software development process.

The SNHU travel project was a success due to our diligent scrum team. The first role I

will introduce is the product owner. The role of the product owner is to communicate with end

users and stakeholders and to gather the necessary requirements for the project at hand. They act

as business “middle man/woman”. This role requires excellent people/communication skills. Our

product owner held a focus group with a few customers of SNHU travel. The product owner

began by asking said users, if SNHU travel was to update what would this group like to be able

to do within the app. In this step the product owner is gathering user stories and will relay this

information to the scrum team. It is important the product owner provide a detailed summary of

the user stories to the scrum team. We took the user stories and listed them in order of

importance. Specifically we wanted this done, the end user could adjust their price range, they

could adjust their settings to find vacation packages they would enjoy I.e cruises, amusement

parks etc. And lastly we wanted a link that displayed the top 10 most popular destinations. The

product owner also listed the goal of having these ideas implemented. As previously stated

communication and business skills are vital for this role.

Next is the role of the scrum master. I have various roles but my main goal is to have the

software development process run as smoothly as possible. I start my day with holding the daily

scrum meeting. Here members of the team, usually the developers and testers, start by stating

what they did yesterday, what they plan on doing today and if they ran into any roadblocks what

were they? This helps the team stay on track and quickly clears any roadblocks. I also created the

team charter which includes, our mission statement, the roles within the scrum team, start date

and end date, any risks with the project at hand, rules of behavior and communication guidelines.

This will give us a time frame and a set do rules to follow during this project.

Next is the developer role. Although every role within scrum is important, i personally

view the developer role as the most vital. They are the men and women who create our projects

vision. Our project had to get slightly tweaked as the end user and product owner wanted a slide

show presentation of the top 10 most popular destination sights. They wanted a picture of the

destination along with a brief explanation on the site. They also wanted a next and previous

button to easily access the next or previous slide. So we implemented this in Java code and

shipped it out. Of course it had to be tested first.

Lastly is the role of the tester within the agile methodology process. They constantly

communicate with the development team to address any issues that arise within code. They test

early and test often as this provides constant feedback for the development team which in turn

leads to quick fixes to code. In the waterfall method testing was often the last step in the process

and small changes in a large code base could result in the developers having to change massive

chunks of code. This was a tail heavy process. The tester for the SNHU travel project checked on

the code base for any bugs and they also wrote out what each user story should do. For example

let’s take a look at the price adjustment user story. The user wanted to adjust the price to a given

range. The tester specified the steps needed to adjust the price I.e click on the price widget, this

will open display a price range for the user to click on. Once clicked the page will reload with all

the project destinations within this price range.

The scrum team broke down the software development process into steps and through

team work they conquered their goal and updated the SNHU travel website. First the product

owner gathered user stories from end users. This gave the scrum team a list of requirements from

the end user. The steps were listed in order of most to least important. The scrum master set up

the daily meetings in which each member of the team discussed what they did yesterday, what

they plan on doing today and any roadblocks that were in their way. They also encourage the

team and facilitate the role of the a good coach/mentor. Next the tester listed the specific steps

they believed the website should take when the user clicks on a link to do something. For

example clicking on the price adjust widget. Finally the developers brought this idea to life with

their code and the product was shipped.

As stated earlier the end user and product owner wanted to change the “top 5 destinations

list” to a slide show. Perhaps they felt this was more user friendly and add an aesthetic look. But

essentially a new sprint was initiated. We had to adjust the code base to meet the end users new

requirements, this code would have to be tinkered with/added and eventually tested and shipped.

The developer had to revamp their prior code and adjust it to meet this new standard. They

included the pictures and a brief description of each destination site.

Communication, from the very start of the sprint process, is inherit within the agile

methodology. The product owner starts off by communicating with several end users to gather

requirements for the new SNHU travel update. They then present this to the scrum team. The

sprint is gaining in speed. The teams begin their work. The next day the scrum master starts off

the day by starting a 15 minute daily scrum. In this the team will communicate and answer

questions related to their work. If any issues are brought up the team member who ran into them

will be advised by their colleagues on how to address the situation. This communication is vital

as it tackles problems head on using communication. There is constantly communication

between team members within the scrum team as after all they are a team and rely on each other

to deliver a solid product.

For our project we used Microsoft azure boards. This is a software that allows the scrum

team to list what they are working on. The project is broken down into bits and listed and placed

into different blocks which might include, “not started”, “working on”, “done”. During the daily

scrum a developer might pick one of these assignments and move it from the “not started” to the

“working on” block. Some companies use post it notes and a white board but we chose to go

with azure boards as they virtually provide the same underlying effect. This helped the team

break down their problem into doable bits and then work on each selected part.

Overall the project was a massive success and we owe a lot to the agile methodology. We

started with a few ideas from the end users and developed that into an end goal. Some pros of the

agile methodology include the logical breakdown of each process. We take an idea from the end

user, present it to the team, and after some hard work have a final shippable process. The roles

within agile are what facilitate this logical breakdown of the software development process. The

daily scrum is another pro, any roadblocks are quickly crushed and the team can move forward

with their end goal. The role of the tester constantly testing and providing feedback in another

pro. In waterfall this step of the process was usually done near the end of the SDL, which can

cause serious problems to arise.

A con might be that this process can be very stressful. Since this everything is done in

sprints there are deadlines that must be met. For a developer who is slightly behind this might

arise in a stressful environment. Same goes for any role but for the most part, a big chunk of the

overall workload is placed on the developers shoulders.

Besides this one con the agile methodology was great and helped us reach our goal.

Working as a team helped us advance our goal. Breaking the software development process

down into doable steps helps the team take a couple abstract ideas from the user and end up with

a shippable product. Each role is vital and together, as a team we delivered a great product using

the agile methodology.