Education Plan

Company 1 - TDDC88

Contents

Version	Author by	Updates	Reviewed by	Date
0.1	A. Nilsson & D. Ma	Initial version	E. Sköld	2021-09-17
0.2	D. Ma	Developed R&D, updated Communication to better reflect the current situation	E. Sköld	2021-10-13
0.3	E. Sköld	Updated Quality part of P&S	D. Ma	2021-10-14
1.0	A. Nilsson	Updated P&S	D. Ma	2021-10-15
1.1	D. Ma	Added section 5 – Educational events	E. Sköld	2021-11-16
1.2	D. Ma	Added section 2 – Educational process	A. Nilsson	2021-11-24
1.3	D. Ma	Updated section 1 and 2. Added comments to other sections.	A. Nilsson	2021-12-04
2.0	D. Ma	Complete restructure to better reflect the education plan rather than acting as a log. Sections 3-5 merged into one, new section 3 Education plan	A. Nilsson	2021-12-06
2.1	A. Nilsson	Added background information on the reason workshops were held in section 4	D. Ma	2021-12-06
2.2	S. Gharedaghi	Grammatical Review	A. Nilsson & D. Ma	2021-12-06

1 Introduction

This education plan is written with the purpose of clarifying what knowledge areas are important in order to succeed with the given assignment, what expertise is existent in the company from the beginning, and what knowledge has to be required. This will be done by surveying existing skills with a gap analysis (see the Excel sheet *Skills* in Teams-General-Files-Company Staff, or click here).

The education plan will also document what the company leadership has done in order to provide each member with the necessary knowledge. This document will be continually updated with input from the department managers and team leaders.

2 Educational process

Educational events shall be planned based on the results of the gap analysis in the *Skills* document mentioned in the previous section. Managers shall analyse the results of the gap analysis and take measures to address areas in need of development. The company shall work with different educational processes to educate and spread knowledge to the members of the company. The processes can be divided into three categories listed below:

- Workshops – held by someone with expertise when the company introduces, for example, a new process and management feel like the company members will benefit from a walk-through of the process. Employees can also request workshops if the necessary knowledge to perform certain tasks is broader than the existing knowledge. Workshops can also be held as a brainstorming sessions to gain input from other employees.

- Informational documents – members of the company can write and share informational documents to guide other members on how to perform specific tasks. An example of an informational document is the README-file found on GitLab, which outlines the process of working on GitLab.

- Gathering and sharing educational content – members of the company shall gather and share educational content if and when needed, e.g., the test leader can find content, like relevant websites or videos relating to testing, and share with the testers to read up on.

3 Education plan

In this section, general plans shall be documented. Following that, specific plans for the different teams shall be detailed.

3.1 General plans

The primary educational source shall be the course lectures, labs, exercises, and finally, the examination. To complement these, members shall follow the educational processes described in section 2.

In our organization, we use a few tools to help us communicate with each other. The primary tool is Microsoft Teams, where communication is handled in channels. The main channel is used for company-wide information, meetings, and the prominent place to store files, while smaller teams have their own channels where more specific information is shared. Everyone has access to every channel to make the information as transparent as possible.

For structuring work, company members shall use Trello to create Kanban-boards. Tasks are put up on the list, and people can either assign themselves or be assigned a task to work on, which is a concept everyone is familiar with when starting the project. No education is needed for these communication tools since everyone is already familiar with them.

In order to centralize the information and minimize the number of tools used by the project members, it is decided in Iteration 1 that the Kanban-boards will be migrated from Trello to GitLab. A workshop shall complement this migration to make it easier for project members.

The Configuration Manager, Deployment Manager, and the Quality Coordinator are responsible for GitLab structuring and education. To educate themselves, they shall study the provided links about GitLab by the course examiner, amongst other sources. To spread what they have learned, the information is translated into guidelines listed in the Software Quality Assurance Plan and a README file found at the root of the development project.

3.2 Product and sales

The Product & Sales department (P&S) consists of four smaller groups of people with more focused work, which are the analysts, the testers, quality, and a group of managers, including the Project Manager, Product Manager, and the Line and Process Manager. Their education plan is described below.

3.2.1 Analysts

To get the proper knowledge to perform their tasks, the analyst's education is based on what we learn in the lectures given in this course about these topics. The lab series in the course also has a lab regarding this topic, which will also be used to gain knowledge.

Continuous dialogue with the customer and visits to the emergency departments will give the analyst team a clear idea of what the customer wants and how to best solve the problem at hand. These will be key for developing use cases and requirements.

3.2.2 Testers

Testers will start to learn about testing by studying the course material presented in lectures and labs to get a basic understanding of what their role is responsible for. The Karma framework for automated tests is chosen together with Selenium to test the application's front-end. The testers will perform self-studies to get the required knowledge of these tools.

3.2.3 Quality

The lecture material in the course regarding software life-cycle models and methods, software metrics, software reviews, and software quality management is the foundation of the quality coordinator's education within software quality. The lab exercises and lecture exercises with quality themes are also beneficial to the learning.

3.2.4 P&S managers

The managers shall use the course material to educate themselves, and find complementary information when needed. As the managers have little experience in management, they shall help each other as much as possible. The company CEO can act as a good source of information and sounding board.

3.3 Research and development

The Research & Development department (R&D) is responsible for developing and programming the product. This includes the Configuration Manager, Architect, Deployment Manager, Technical Writer, UX Designer, and Developers.

3.3.1 Developers and UX designers

As the architect and the lead UX designer have previous experience with the MEAN stack framework (chosen framework for the development), they shall have the primary responsibility of educating fellow developers and UX designers.

Developers shall, in the beginning, focus on self-education by reading documents shared by the architect. The developers shall share educational content in a separate documents (found here). Developers shall make use of booked rooms on scheduled course time to sit together and

pair-program when needed. This way, members can educate each other and widen each other's perspectives.

The lead UX designer shall make use of the document "Länkar och Tips 2021" which lays the foundation for the UX team to work with and educate themselves with. The UX team shall share links in separate documents (same as the development team, link found above).

3.3.2   R&D managers

The managers of the (R&D) department shall do self-education with the help of course material, and other helpful content when needed. The managers shall make use of the supervisors for additional education.

4   Educational events

After the Tollgate, the analyst team had a lot of work ahead to complete and document relevant requirements and use cases. The lead analyst expressed this issue at the manager meeting on September 20th, which led to a workshop being planned to educate other people in the company to be able to create use cases to speed up the process. The workshop was open to anyone in the company to join.

The development workshop was planned for the purpose of getting everyone in the company set up with the development environment. This includes access to GitLab to be able to clone the project and get started working, set up Docker on everyone's computer, and educate all team members on how the code should be structured and how components should be created.

To get a good start with testing in the project, a workshop was planned where all the testers attended to synchronize their work and the tools that were going to be used. The different tools that were going to be used during the project were set up so that all testers had a working version and understood how to use it. Karma and Jasmine were evaluated in the workshop to see which framework was going to be the best to use in the project.

The GitLab workshop was planned with the intention of updating the company on how we should use GitLab and the tools it provides during the project. We previously used Trello for our issue needs, but it was discovered that GitLab provided this feature, together with many more tools useful for traceability as an example, which made us switch to GitLab to have everything in one place.

In the following table, any educational event (i.e., workshops) within the company will be listed, together with a short description of the event itself.

What	Date	Responsible	Description
Analyst workshop	24/9	S. Andersson	Walk-through of creating use cases and finish creating use cases.
Development workshop	28/9	J. Karlén	Setting up the development environment and how to get started with development.
Testing workshop	12/10	A. Telenius	Workshop to evaluate and discuss test tools.
GitLab workshop	3/11	A. Ambrosius & E. Sköld	Walk-through of guidelines and tools to use in GitLab. Focus points: requirements, labels, boards, workflow, commit messages, and merge requests.