

Project Plan

CannonPrint Test Results Visualization Tool

Canon Production Printing

Date	:	06/03/2023
Version	:	0.1
State	:	Ongoing
Author	:	CodeCrusaders group

Version history

Version	Date	Author(s)	Changes	State
0.1	06/03/2023	CodeCrusaders	Basic document structure	Finished

Distribution

Version	Date	Receivers

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1. Project assignment

1.1 Context

Canon Production Printing (CPP), formerly known as **Océ** until the end of 2019, is a Netherlands-based subset of Canon that develops, manufactures and sells printing and copying hardware and related software.

Canon currently uses a lot of regression tests. These are automatic tests that run after every change to the codebase to ensure that the changes did not introduce unintended bugs. These include basic tests in which the printer is turned on virtually and more advanced tests which check if a printer can recover from specific error scenarios. These tests are done for multiple configurations of the printer; for example we test configurations with all hardware but also configurations in which there is no hardware available to print duplex sheets.

The current implementation of the regression dashboard that Canon uses it's storage inefficient and the interface is not user friendly and can be improved a lot.

1.2 Goal of the project

Our goal at CodeCrusaders is to improve the already existing test regression dashboard since the current implementation of it that Canon uses it's storage inefficient and the interface is not user friendly. We want to develop a stable and bug free solution that will improve the current working condition of Canon employees when dealing with unit tests and regression tests. They will be able to filter the tests and search for specific test results and even show similar tests with the same result. The data will be stored in a database and sensitive information will be protected.

1.3 Scope and preconditions

Inside scope:	Outside scope:
1 Documentation	1 Training manuals and instructions.
2 Software Solution	2 Hardware to run the application.
3 Test plan and test report	3 Infrastructure to set up the application.
4 User specific requirements	4 There will be no updates after the solution's final version has been agreed on and deployed.
5 UML diagram	

<< Indicate any preconditions. E.g., think of technology choices that have already been made by the company. Note that you are also expected to retain a critical, but constructive, mindset for choices already made >>

1.4 Strategy

After conducting research and analyzing the results, our team has decided to use the Agile SCRUM project management strategy. We took this decision because we want to stay flexible while making the most out of the time we have to make this project. We feel like the Agile way of development allows us to create a product that is as good of a representation of the clients needs as possible. This is achieved through the sprint setups. As at the end of each sprint, the client is presented with the product thus far, and as a result changes can be made dynamically and more efficiently.

Every sprint one of our members is the SCRUM master and the contact person. We will also have a sprint transcriber. The remaining 4 members are partakers.

1.5 Research questions and methodology

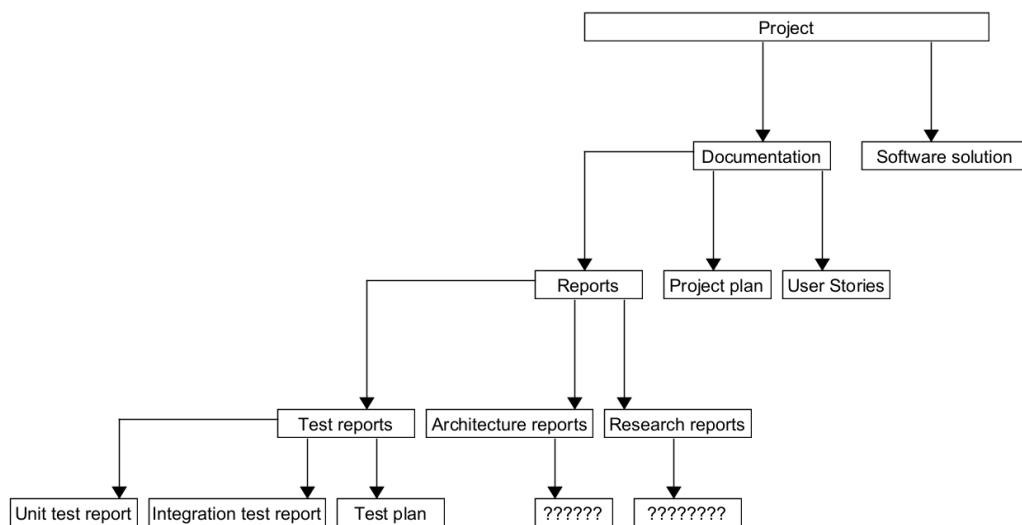
<<Describe the research questions that are most relevant to your project. For each research question, describe the approach and/or methodology. Use the Dot Framework to specify strategies and methods - see <http://www.ictresearchmethods.nl> for details.

Note that research is not only part of the initial phases (like analysis) of the project, but runs throughout the whole project. E.g., in the realization phases, you will probably do research in the Workshop and Lab context.

Realize that during the project your research questions may change, and that new ones will come up. That normal for any project, and is not a problem as long as you involve the right stakeholders, and keep your deliverables updated.

>>

1.6 End products



2. Project organization

2.1 Stakeholders and team members

<<Indicate all stakeholders and team members for your project. For each stakeholder indicate the role for your project. Note that the role that a person has for your project is different from the function the person has. E.g., someone with the function "department manager of department X" can have the role of product owner for your project.

Name	Abbreviation	Role and functions	Availability
Tom Buskens	T.B	Client	Available through email Monday-Friday Every three weeks a meeting with the team.
Gupta Roopali	G.R	Project Coach	
Tim de Lange	T.L	SCRUM Master	
Andrei ALEXANDRU	A.A	Team member	491992@student.fontys.nl
Radu Andrei Popescu	R.P	Team member	490388@student.fontys.nl
Adrian Vlad Pop	A.P.	Team member	493739@student.fontys.nl
Lê Anh Tuan	A.T	Team member	476005@student.fontys.nl
Munkh-Erdene Temuulen	M.T	Team member	

2.2 Communication

Our team has dedicated our online meetings to using Discord and Microsoft Teams. As for the real life gatherings, we use university rooms to come together. In each of the meetings we conduct and respectively each of our members gets to work on a problem, either individually or as a group.

Our group also takes notes of our meetings and separates them in their designated channels. We create meeting minute documents that are currently stored in a specific Discord server, later to be uploaded onto our GIT repository.

We do not take an attendance list, but we make sure that each of our team members are aware of the situation and work we have to do. We notify each other in case of absence. In case of an online meeting/campus, we make sure to get a specific time and location/platform for the meeting.

3. Activities and time plan

3.1 Phases of the project

In the first sprint we started analyzing the product and what is required of us. We started making plans for the project and drafting requirements and user stories. In addition, we have created an account on Jira because it is a good agile management tool to use and it helps us to show the backlog of the project and know the goals we need to achieve for each sprint. In addition to that, we chose the technologies for the project and started learning those technologies.

3.2 Time plan and milestones

This semester we have chosen to use Agile scrum methodology because it is focused on the client process. So, it makes sure that the client is continuously involved during every stage. In addition, the process is completely based on incremental progress. Therefore, the client and team know exactly what is complete and what is not. This reduces risk in the development process.

During this semester we divided the backlog and tasks of the project into sprints. The duration of each sprint is three weeks. During each sprint, the scrum process includes these three activities so that the team can communicate about the project.

1- Sprint planning: Before any work can begin, the Scrum team must meet to prioritize features for the product and create a product backlog of features. The product backlog is a list of tasks the team agrees to complete in an assigned sprint.

2- Sprint scrum meeting: A daily Scrum meeting is held to talk about the previous day's work, discuss hang-ups, and define what work will be completed that day. Each member of the team updates the group on what they've been working on and brings up any issues or questions.

3- Sprint review and retrospective:

During a sprint review, the Scrum master, product owner, development team, and stakeholders review what they have accomplished during the sprint compared to what they intended to accomplish. This meeting may include demonstrating the product for the customer or stakeholders. Any necessary changes are implemented. During a sprint retrospective meeting, the Scrum team takes a closer look at the sprint itself. What went well and what could be improved in the process, so the team can become more efficient and agile over time.

Phasing	Effort	Start date	Finish date
1			
2			
3			

4. Testing strategy and configuration management

4.1 Testing strategy

<<Which testing strategy do you envision? E.g., on which levels will testing take place? Consider that you could choose unit, component, integration, system, or acceptance testing.

Justify your strategy, and also set goals where relevant. E.g., percentage code coverage for the relevant unit tests. For each of the planned tests, indicate what will be automated and what not.

Also think of quality testing setups like, e.g., Sonarqube.
>>

4.2 Test environment and required resources

<< Describe the test environment. E.g., do you envision a DTAP (Development, Testing, Acceptance, Production) environment. Can you make use of a CI/CD environment or will you develop your own?

It often helps to use a picture to visualize the test environment.

If you already know, describe which resources are required for realization and testing. Think of hardware, cloud environments and specific tooling required for development and testing.
>>

4.3 Configuration management

<< Describe the project approach with respect to version management (e.g. your GIT repository). This might include things like tooling, branching strategy, promotion-, release- and baseline strategy.

Also, when relevant, think of a mechanism to deal with change requests and problem reports.>>

5. Finances and risk

5.1 Risk and mitigation

Risk	Prevention activities	Mitigation activities	Probability
1 Scope Creep	Create a very clear project plan and scope	Cut on the features that are outside of the project scope	Medium
2 Team Burnout	Work in a controlled and scheduled manner	Take breaks when feeling too tired	High
3 Misaligned expectations	Get a clear view of what the client wants every time before starting a new sprint	Rediscuss requirements with the client and start the sprint again.	Low
4 Inadequate testing	Test the product after every feature has been finished	Fix the problem as soon as possible	Low
5 Lack of documentation	Make sure that documentation is up to date with the latest software version	Update the documentation as soon as possible	Low
6 Dependency management	Make sure that all technologies are compatible when starting to work on a project	Find the quickest way to get to a stack of compatible technologies for the project	Medium
7 Technical Debt	Make sure that thorough software development principles are applied when implementing your application	Analyze the code and fix the found flows in it. After this step make sure that all tests are passing and the solution is functioning as planned.	Low
8 Project track tutor/ client unavailable	Communicate often with the tutor so that there is time to prepare if this occurs	Find a replacement teacher/person with similar expertise to answer questions	Medium