

Project

To be done in a team of 2-3 students.

The goal of the project is for you to develop a **working prototype (apk file)**. The different steps will be to research on the topic of your app, to write a product backlog, to design, develop and test a prototype, and document and present your work. You will use Scrum to work on the project. The idea is that you will work on something useful and that you are passionate about. You are asked for a prototype app. Due to the short length of the project, you will not be able to do a complete app! It will be a prototype and you will have to make decision on what to integrate and what to leave out. We must have an idea of what the app does. There are many things you will not be able to implement. You should however be creative and ambitious!

Deliverables

Each team will use a channel in Slack #team1, #team2 etc in the existing slack.

GitHub of the project (with title of the app, picture of the team etc.)

Idea proposal & Research - On the wiki

Product backlog (User Stories) – On the wiki

Pen-and-paper design – On the wiki

Sprint 1 prototype – In GitHub

Sprint 2 prototype – In GitHub

Sprint 3 prototype – In GitHub with video on YouTube

Presentation – **Live** presentations will take place

Documentation - Wiki of GitHub – Regularly

I will check the deliverables of your work on your GitHub wiki only.

The project will be done using the Scrum process.

Grading (out of 20)

Idea proposal, research & backlog – 4 points

Prototypes – 6 points

Presentation – 4 points

Documentation – 2 points

Process – 4 points

The intermediary and final versions of your work will be graded and you will get a grade out of 20. Iterative delivery is required. Delivery of a unique version of the work will reduce your grade dramatically.

Not dealing with different sizes of images will reduce your grade of 5 points.

Requirements for the app

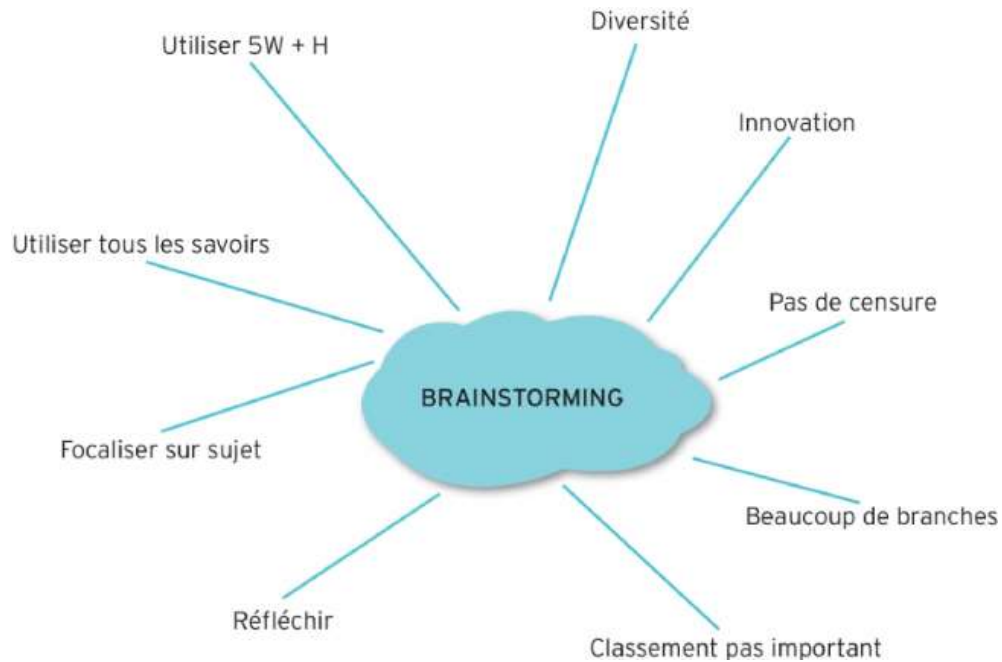
- Use fragments (Optional)
- Use several activities
- Use several images
- Use at least 2 elements of Material Design
- Look-and-feel is crucial!
- GitHub must show pushes from **ALL** team members (students who do not push code will get 5 points less)
- The wiki must show updates from **ALL** team members (students who do update the wiki will get 5 points less)
- Use an API (Can include Firebase) (Optional)

Idea Proposal & Research

To be posted on the wiki of the project and be done iteratively.

1. What is/are the **problem/s** you want to solve? Please provide background based on research.

For example, if I am building a mobile app to improve maternal health in India, I will need to know how many mothers are dying due to pregnancy and how many children under 2 are dying in India.







<https://www.e-marketing.fr/Thematique/academie-1078/fiche-outils-10154/Le-brainstorming-324669.htm>

2. Who are the users you are targeting? Please use a **Persona** to describe your users and draw a picture of your target user.

For example, this sport solution is for John. John works on Wall Street and owns an iPhone. He earns more than \$200,000 a year + bonus. He goes to 2-3 games a year and invites friends at home to watch the other games. He loves baseball and would love to use a fan app that permits him to stay in touch with his favorite team.

MODÈLE DE PERSONA

 PORTRAIT & PRÉNOM	 DÉTAILS	 BUT
<p>A quoi ressemble la persona ? Quel est son prénom ?</p> <p>Choisissez une image et un prénom qui soient représentatifs, et qui vous permettent de développer de la sympathie pour cette persona.</p>	<p>Quelles sont les caractéristiques et comportements pertinents de la persona ?</p> <p>Cela peut mettre en jeu des données démographiques, le travail, le style de vie, les activités de temps libre et d'autres tâches courantes par exemple.</p>	<p>Pourquoi la persona voudrait-elle acheter ou utiliser le produit ?</p> <p>Quels problèmes devraient résoudre le produit ?</p> <p>Quels sont les bénéfices que la persona souhaitent obtenir ?</p> <p>S'il y a de nombreux problèmes ou bénéfices, identifiez le principal et mettez-le en haut de la pile.</p>




www.romanpichler.com
Template version 12/13

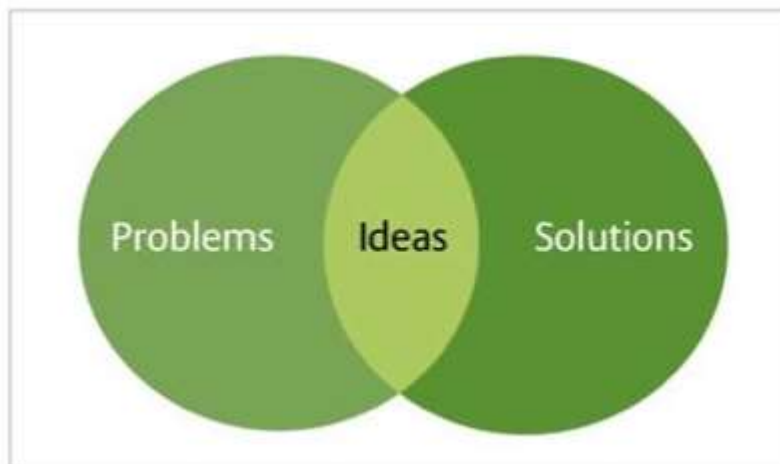
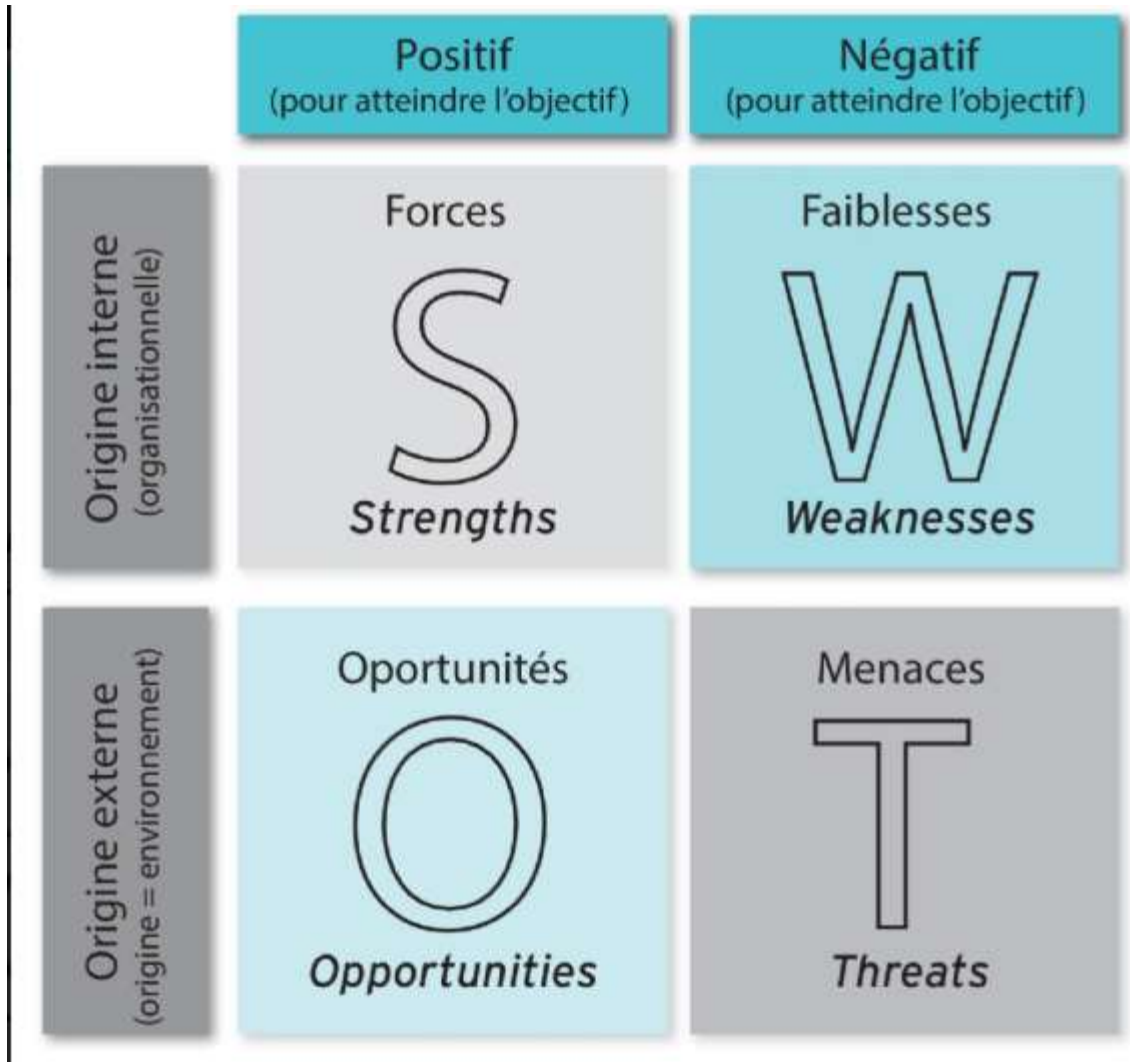
REMPLIR
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3. What are the **major features** of the solution? List the features.
4. Test the interest of this solution by creating a survey (Google Docs) and asking at least 10 potential users what they think. Summarize the answers of the users and show how they influenced your idea.
5. How is this solution unique? How does it relate to existing solutions on the market? What are 3 solutions similar or related to what you want to do (Google Play Store or other). Do the **research** and know that you are probably not reinventing the wheel!
6. What technologies, APIs etc will you be using to develop this solution? Provide links and explanations.
7. What are the SWOT of your solution?



User Stories

Write the user stories (product backlog) that describes the functional and nonfunctional requirements of your app. The user stories should be organized in a Google Docs. A template / example is available here: <https://docs.google.com/spreadsheets/d/1MyKivK6PZ1WnFGbhxCuuVY6fNfTHdzvYbMDZMuMH5GY/edit?usp=sharing>

In French:

<En tant que> rôle, utilisateur

<Je Veux> besoin, action

<Afin de> bénéfice, valeur métier

Design

Do a pen-and-paper design of the app. The look-and-feel and user experience are very important in mobile app development. You have less than 30 seconds to convince potential users with a great app. There are tons of apps out there and most of them are free.

Prototypes

Build prototypes for the solution you proposed in the Idea Proposal – one for each sprint. The final prototype must WORK and be presented live during the presentation on emulator or a phone (see how to use VYSOR). The scope of your work cannot be too simple or too complex. All students in the class will test all apps during the live presentation. That student will provide feedback live. All apps will be downloaded at the beginning of the live presentation sessions.

Presentations

- You will prepare a Google Docs presentation to present all your work on the project.
- Presentations will take place at the end of the project and last 10 minutes maximum.
- Presentations will be **LIVE**.
- Presentation setups have to be tested before the presentations. No time will be allocated during the presentations for testing. You have to be ready!

Presenting your app using Vysor permits to monitor the screen of your Android device directly on your computer screen <https://www.vysor.io/>.

Skeleton of the presentation: (suggested only)

1. Presentation slide (team, name of the app required, wiki url, vide url etc.)
2. Description of the problem
3. Research about the app and the market (how did you test your idea?)
4. Description of the users (Persona)
5. Presentation of the product backlog
6. Features of the app
7. Technology that was used
8. 4-5 screenshots and link to video on YouTube
9. Description of your experience with Scrum
10. Status of the development of the app
11. Problems you encountered in the development of the app

Process

There will be 3 sprints of 1 week. Each sprint will have a sprint planning, a sprint review and a sprint retrospective. You will have one Scrum on Slack with Dr. Scharff during the sprint.

At the end of each sprint, you will update your wiki with a working apk and a YouTube video for the demo, as well as information about the work that was completed compared to the work that was planned.

GitHub

GitHub will be used for the documentation of the project. All documents (and code) should be available in GitHub. The presentations will be pulled from GitHub. The wiki of GitHub will be like your web site for the project. It will contain everything about your project proposal, design, presentation, code etc.

Documentation on using wikis in GitHub: <https://help.github.com/categories/wiki/>

Teams

Choose your team!

References

Please mention all the references you used to produce this work – including academic conferences, tutorials, access to API, open source code etc

Going forward

“Business Model Canvas is a strategic management and lean startup template for developing new or documenting existing business models. It is a visual chart with elements describing a firm's or product's value proposition, infrastructure, customers, and finances.” [Wikipedia]

Download the Word document from here: <https://www.creerentreprise.fr/wp-content/uploads/2016/10/Business-Model-Canvas-fran%C3%A7ais-word-1.docx>

Business Model Canvas

