{EPITECH}

SMART FRIDGE_

< PROJECT INITIATION & PLANNING />

SMART FRIDGE

In a world where digital transformation affects every aspect of daily life, connected devices are becoming increasingly prevalent.

Examples such as voice assistants, smartwatches, and robot vacuums show how technological products have radically changed household habits in just a few years.

Your mission is to work on a **next-generation connected refrigerator** project.

What is your mission?

Your company plans to launch a **next-generation refrigerator**. The home-appliance market is highly competitive for conventional models. However, the *smart connected fridge* segment is still emerging, leaving room for innovation and differentiation.

You must plan all the steps, from the initial idea through to commercialization.

You will **not** physically build the fridge, but rather investigate the project's **viability**.
Various aspects must be addressed: planning, budget, resources, risks, and communication.

Investors expect clear milestones:

- ✓ **Proof of concept** (market analysis, feasibility, features definition);
- ✓ **Prototype/Pilot** (tests, connected mobile app in beta);
- ✓ **Industrialization/Commercialization** (production, distribution, communication, ...).

Project definition and viability

Hold a **brainstorming** session with your project team to list all the elements that must be considered. In particular, you will have to define the product based on a quick market survey.

You should ask yourselves a ton of question, such as ”high-end or entry-level?”

You are in charge of:

- ✓ Scheduling the different steps;
- ✓ Managing task completion;
- ✓ Allocating resources;
- ✓ Presenting a budget proposal;
- ✓ Ensuring risk containment;
- ✓ Identifying relevant skills and profiles;
- ✓ Reporting on and communicating about the project.

Global project planning

You probably already have some standards for project quotation. Here, we emphasize a two-fold project with a recursive aspect:

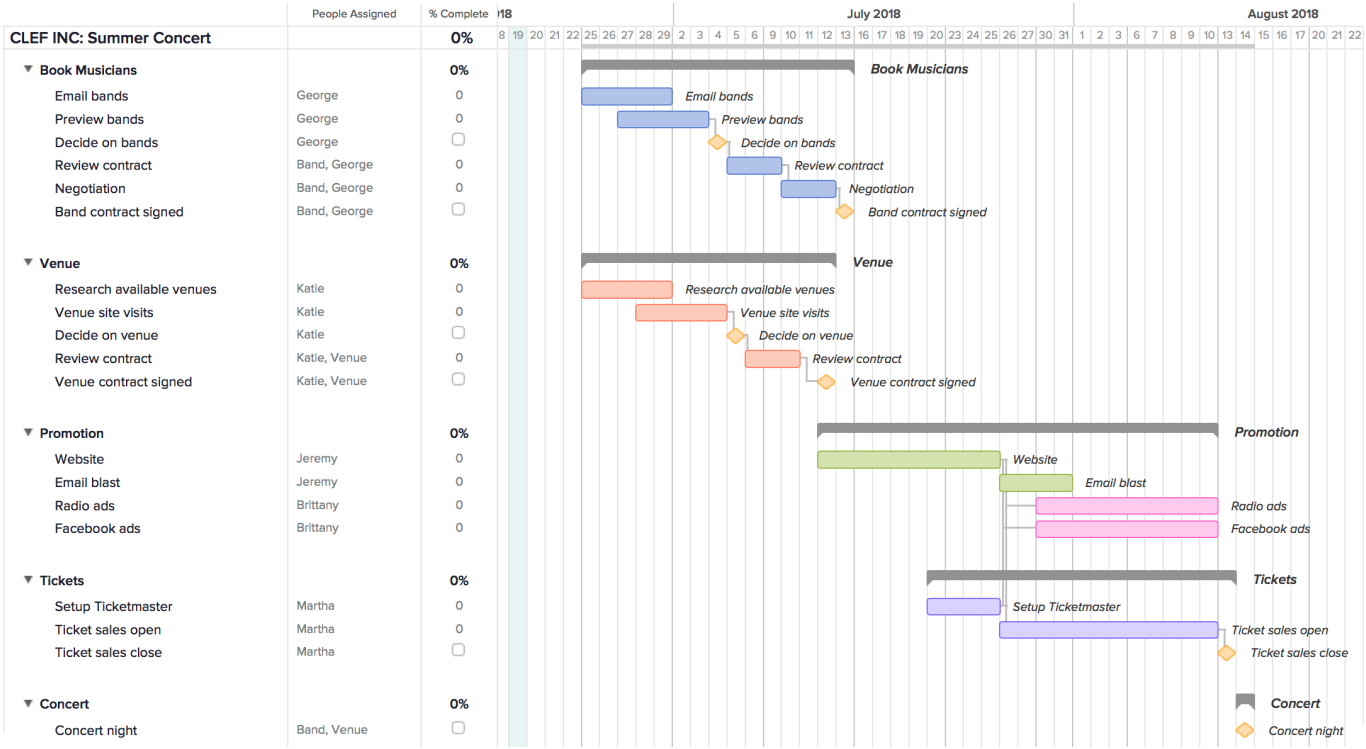
- ✓ Managing your teamwork for setting up the construction project (this part is entirely included in the T-CEN-500 time frame);
- ✓ Managing the construction project — specifically, scheduling and staffing (this project is imagined to take place outside the T-CEN-500 time frame).

Recursion is the key idea here: you are expected to update your deliverables whenever relevant.

This means regularly revising and amending your documents.

If, at some point, you notice something missing from your plan, and since the construction phase has not yet started, you will need to add it to your previous plan, budget, etc.

This is why you must select a project planning tool that supports this iterative approach. The required format, in any case, is a **Gantt chart**.



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What you are expected to submit for this task

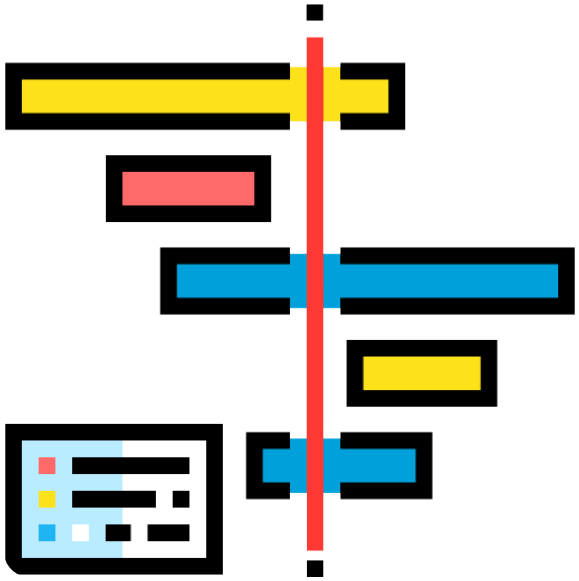
You are asked to:

- ✓ Identify all the steps relevant to the construction project;
- ✓ Create a Gantt chart including these steps.

Make your own research about Gantt charts.
Understand how it is different from a simple timeline.

Your first version should explicitly reflect your brainstorming process and the initial plan you suggest. Naturally, this version will need to be updated and refined over the next weeks.

This document MUST follow the naming template: `groupname_gantt`.



Identify the skills needed for the construction project

Effective resource management is a cornerstone of project success. Who do you need on the team, and how will each person contribute? Whether you are forming a new team or leveraging an existing one, you'll need a variety of skills and mindsets.

What do you need?

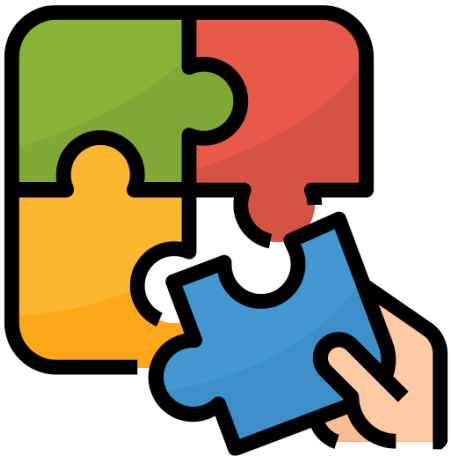
Once you've brainstormed the project steps, it's time to dig deeper. Which skills are required to carry out the work? Carefully analyze each task, identify the necessary skills, and organize them into categories as completely as possible.

What you are expected to submit for this task

Based on your skill requirements, describe the profiles you will be looking for. This takes the form of a persona, which will be valuable during recruitment to ensure all skill needs are covered.
You are expected to submit one PDF file, containing one persona per page.

⚠️ This document MUST follow the naming template: `groupname_skills`.

📢 Reading carefully the last paragraph may already bring to your attention a step that you potentially forgot to take into account. Remember to update your Gantt chart if need be.



Identify the resources you need for the project

Which resources are necessary for the construction project?

Now that you know which people you need to hire, brainstorm and list the required blueprints, materials, equipment, technologies, trainings, meetings, and any other resources.

What you are expected to hand in for this task

Submit an Excel table detailing the material needs (including quantities where relevant).

Don't forget to update your Gantt chart with resource-related information.

Keep in mind that not all resources are immediately available — factor in possible delays.

This document MUST follow the naming template: `groupname_resources`.

Budget proposition

Now that you have identified the required skills (and the relevant profiles to hire) as well as the list of materials and equipment needed, it's time for your team to prepare a budget proposition.

Research prices online and organize your budget into categories.

What you are expected to submit for this task

Submit an enhanced version of the resource list from the previous exercise.

Remember to update your Gantt chart with the deadlines for purchasing materials.

This document MUST follow the naming template: `groupname_budget`.

Risk management

You can improve your project in many ways, but one thing you cannot control: unforeseen events.

Take the time to identify the major risks that could threaten the success of your project and consider how to address them.

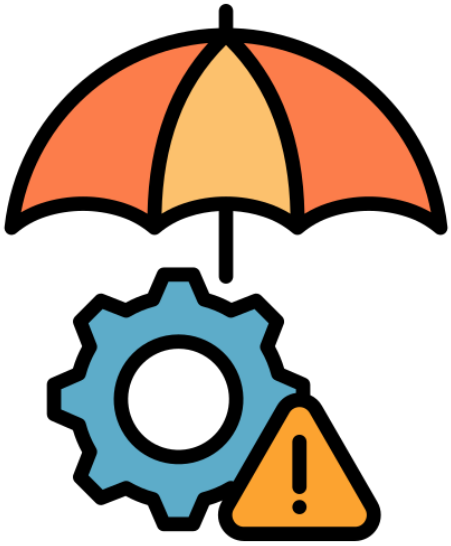
What you are expected to submit for this task

List three major risks your team has identified, along with a possible solution for each.

If money is involved, update your budget proposition; if time is involved, update your Gantt chart; if skills or materials are involved, update the relevant documents.

For each risk, evaluate its probability and impact.

This document MUST follow the naming template: `groupname_risks`.



Communication

Communication is a key milestone in every project. You need to master it to manage a project successfully. The stakeholders are varied, but here we will focus on three: someone from within the team, someone external, and someone in a supervisory role.

What you are expected to submit for this task

Submit two pieces of communication (emails, letters, brochures, requests, informational videos, etc.) directed to:

- ✓ Team members, to present the various aspects of the project and explain how you plan to manage them — essentially outlining your management approach.
- ✓ A member of your company board, to inform them of the budget request, explaining why the requested amount is necessary.

⚠ These two documents MUST follow the naming template: `groupname_communication#`.

⚠ Remember to amend your Gantt chart with these tasks!

Delivery

The delivery consists of a **review** of your documents with your academic tutor, as a group.

You will need to explain the pitfalls you encountered and how you addressed them.

Specifically for the **Smart Fridge Project**, you will be expected to:

- ✓ Present how you validated the **technical feasibility** (sensors, IoT, mobile application, embedded AI);
- ✓ Justify your **budget choices** (initial investments vs. recurring costs);
- ✓ Explain your methods for mitigating **market-related risks** (adoption, pricing, competition);
- ✓ Show how you adapted your **planning** and deliverables in response to unforeseen events.

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