

Case study

About the case study

The aim of the case study is to resolve an actual technical problem. All of you are participants – students of different professions with different background. Whole case study is chronologically described below. It should roughly help you plan your actions. The problem should be discussed and solved in each working team. While making yourself familiar with the problem, write down all your thoughts, ideas and calculations. Try to organize your time and suitably distribute the tasks. Anyone can contribute to the final resolution with their own specific knowledge. The final presentation can take up to 7 minutes. The jury will rank your final solution on the basis of originality, economic use of materials, technical accomplishment, quality of the presentation, and the costs of your project.

Case Study task: A House on Water

Task provided by BEST

Introduction

Imagine the situation. You have just graduated from the university. You have started planning a business. You have always been amazed by water, and have dreamt of living in a house on water. And now, when you are an engineer, you can make your dream come true for yourself and for millions of happy customers around the world!

Task Description

So, your idea is to start selling houseboats; houses with the ability to float on water. How exactly? Well, that's completely up to you – you are the Project manager, after all.

Basically, while starting a new product, you need to think about the customers: who are they, why do they want a floating house, how much are they willing to pay, how to sell a house to them? You need to have the picture of your customer always in your mind.

Technical Part:

While designing the house, do not forget to focus on these things:

- what functionality the house should have (for chosen customers)
- how will it be made
- what materials will be used
- the house should be resistant to bad weather
- security measures
- how will it be connected to the ocean floor
- how would you get energy (no connection with civilization)
- and other things

This all should be summed up in conceptual and technical drawings of the house and explanatory notes if you will make some.

Business part:

In the second part, you will need to make a complete business plan, including:

- An analysis of the potential market and a marketing strategy.
- Anything else that you deem necessary to make an appealing business plan.
- How can the house be built, make an estimation and possible costs of all the equipment.

Recommended Schedule

1. Intro (08.00 – 09.00) 1 hour

The explanation of the problem with discussion and eventual questions

2. Problem background (09.00 – 11.00) 2 hours

Make a structure and plan of your work and delegate tasks efficiently.

Make a list of all material you would include in the project with all the specifics and details (brand, price).

Materials should be chosen according to technical aspects. The technical part should be done in this time

3. Project Plan (11.00 – 14.00) 3 hours

Make a Project plan where all elements and risk assessments will be assumed.

Basically the problem must be solved.

4. Finishing the solution (14.00 – 15.00) 1 hour

Your task should be finished in this time. Small corrections can be done but do not change your general thoughts. Remember you only have one hour left.

Start to consider how to make an interesting presentation of your project. Your presentation must be ready by the end of the time. You can also use flipcharts and markers. Try to cooperate as much as you can. Make a final performance and be persuasive – remember – the better performance, the more points!

Presentation and evaluation

You will be given 7 minutes to present the results of your task to the jury. You are allowed to use PowerPoint, flipcharts and markers. Your work will be evaluated by the jury based on the following criteria:

Originality of the idea: 0 - 25 points.

Technical viability of the idea: 0 - 25 points.

Economical viability of the idea: 0 - 25 points.

Presentation: 0 - 25 points.