Manual

How to write pedagogical designed business cases

Abstract

For some time now the case study, as a teaching tool, has been growing in popularity, and has become a common method in international teaching at universities. But what distinguishes this teaching and learning format? What is a 'good' case study? What basic didactic ideas should the case study pursue? This manual attempts to answer these questions. The manual is addressed to lecturers in higher education who want to develop a case study for teaching that is conducive to learning. Therefore, the manual provides the necessary basic knowledge about the case study teaching method, the didactic principles that are important for the development, as well as guidelines for the conception and writing process of a case study.

This manual accompanies you in your writing process and gives you helpful tips on how to create a case study that is of high quality didactically, and enhances learning

Content

What makes the difference...

University teaching is undergoing a change throughout Europe: Concepts are required that support the shift from teaching to learning and enable student-based learning, which we know from educational science, promotes learning itself. This didactic guideline must be pursued with suitable teaching and learning arrangements. The case study therefore has great potential for this, if it is modelled with a didactic approach (problem orientation, relevance to the life world, openness to solutions etc.), as we will show in the following section.

> **With the development and use of didactically high-quality case studies, the goals of the shift from teaching to learning can be pursued and student-orientated learning can take place.**

You may wonder why you should read this manual, when there are hundreds of case studies and a number of guides on how to write case studies. Therefore, we would like to take a clear position here: In the case study literature, it is often proposed to be essential that case studies should be taken from real business practice, and should necessarily include real existing data and materials. This manual shows a different perspective: A case study should of course have the essential practical relevance and authenticity, but the didactics is at least as important, and has often been neglected so far. A case study should be didactically well thought out, orientated towards learning objectives and adapted to the learning group, in order to be a method that promotes learning. This manual therefore focuses on the didactic perspective and gives you instructions for your own didactically high-quality creation.

> **Case studies from reality are good - case studies with realism <u>and</u> didactic quality are better!**

Step 1: Informing about the case study as a teaching and learning arrangement

1.1 The case study

In today's university teaching and didactics, complex and competence-orientated teaching-learning arrangements are required in order to promote the key competences of students, prepare them for the demands of the labour market and improve their employability. The case study presents a method that can be used for this purpose. First of all, we would like to explain what a case study is. A case study usually consists of two parts: A teaching note and the actual case that forms the learning situation.

The teaching note contains information about the objectives of the case study, suitable areas of application, and didactic advice from the case study developers for teachers planning to use the case study.

The case describes a realistic problem situation, for example of a company, and creates various perspectives and roles with which the learners identify, and are therefore motivated to solve the problem. In this way the students put themselves in a position of decision-making power, and try to cope with the interdependent conflicts of the case.

> ⚠ **A case study consists of accompanying information for the teachers, the so-called teaching note, and a problematic and conflictual case for the learners to solve.**

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1.2 Variants of the case study

Among the case studies, several types and variations can be differentiated, all of which are basically subject to the principle of problem orientation, and the associated procurement of information and problem solving, but differ in terms of their didactic focus and the underlying intention. With the following table you can get an overview and choose the case study variant that suits your goals.

	Problem identification	Obtaining information	Identifying alternative types of solution/ Problem solution	Criticising the solution
Case-Study-Method	*Focus* Hidden problems must be analysed	Information is given	The information provided is used to identify possible solutions to the problem and make decisions	Comparison of the solution with the decision in reality
Case-Problem-Method	Problems are mentioned	Information is given	*Focus* Based on the given problems and information, solution variants are identified and a decision is made	Possible comparison of the solution with the decision in reality
Case-Incident-Method	The Case is not completely presented	*Focus* Information must be procured independently	Possible solutions are identified and the Case is resolved	
Stated-Problem-Method	Problems are pre-defined	Information is given	The finished solutions including the justifications are given, possible search for additional alternatives	*Focus* Criticism of the solutions provided

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1.3 Advantages of the case study

Why should you develop or use a case study? We will show you this by listing the many advantages of this teaching-learning arrangement for you:

You as the lecturer can…

- … offer a varied, exciting learning environment,
- … enable problem-based learning,
- … offer a complex teaching-learning arrangement with little technical and spatial effort,
- … observe and accompany the learning process.

Students can…

- … actively shape their learning process and learn in a self-directed way,
- … solve problems and make decisions within realistic simulation situations without taking any risk or bearing the consequences of their actions,
- … build key competences through the setting and the case study material itself,
- … be motivated, as their living environment is addressed,
- … transfer to professional practice,
- … learning in a cooperative and collaborative manner within the learning groups.

The **self-creation** of a case study can be of great benefit; in particular, the possibility of adapting the case study to your learning group, and determining the learning objectives yourself, can have a considerably beneficial effect on the teaching-learning process.

> **By developing your own case study, you can become active as a didactician, set the learning objectives yourself and take the learning group into account. In this way, it is possible to model the case study in a way that is tailored, and conducive to learning.**

1.4 Case study process

The case study represents a teaching-learning arrangement designed for self-directed learning and openness to solutions. Within the process, you will therefore take on the role of a moderator and learning guide. Learners usually work on the case study in small groups. A possible, ideal-typical phasing could be realised with the following processing sequence:

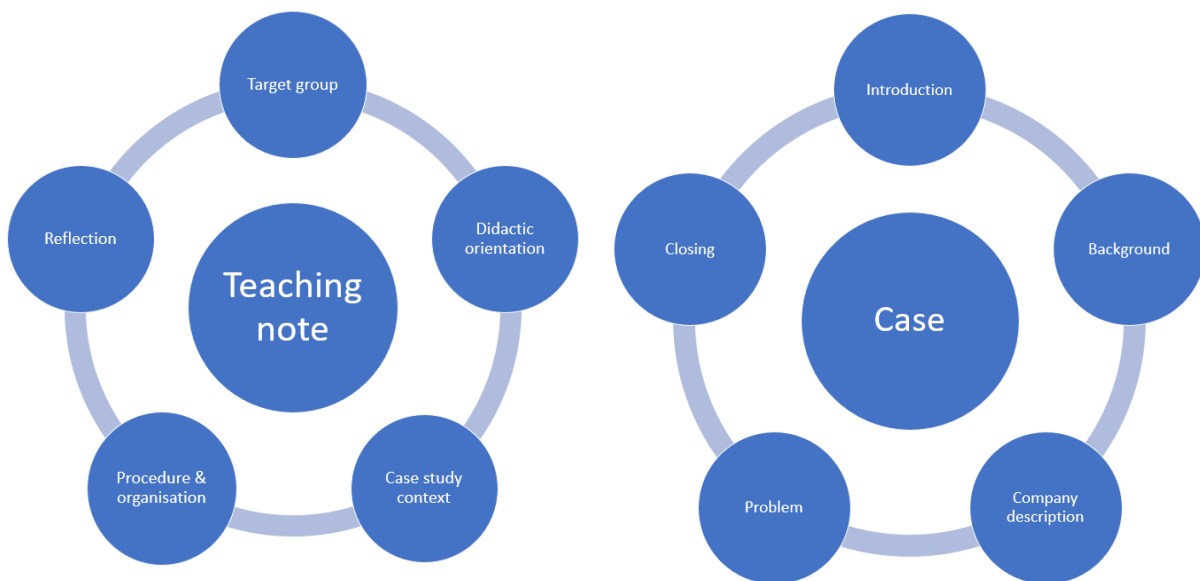| Processing of a case study	
	1. Confrontation with the case
	2. Gathering information using the case material and further resources
	3. Discussion of solution variants within the learning groups
	4. Consideration and decision on a solution approach
	5. Defence of the solution with argumentative structure
	6. Comparison of the solution with the decision from reality (if possible/ necessary)

This procedure is only intended as an orientation – you can design the case study work flexibly and according to your preferences and goals — but you should consider how you can use the features of the teaching-learning arrangement for a process that promotes the learning.

A case study is carried out by the learners in a self-directed and autonomous way, usually in small groups. Lecturers only act as learning guides or coaches and take on a moderating role.

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Step 2: Structuring a case study

In principle, case studies therefore consist of two parts: The teaching note and the case. In many case studies the teaching note is moved to the appendix. In this case, however, it is recommended that the teaching note is placed in front of the case, due to its importance and didactic relevance, so that it can be used as a didactic orientation aid in the writing process from the beginning. The teaching note is made available exclusively to lecturers and is not intended for use by students.

When designing the teaching note, you should consider the target group, the didactic orientation, the background of the case study, the procedure (the course of processing and the teaching organisation), as well as reflection possibilities. You will receive further assistance in the following section.

The case should contain an introduction (Who? What? Where? When? How?), explain the background in the form of company history or a description of the industry, characterise the company itself, present the problem situation as the most important momentum of the case study, and provide a conclusion with possible food for thought.

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Step 3: Writing a pedagogical designed case study

Practical relevance + didactic accuracy = Case study that promotes learning

What is actually meant by conducive to learning? Many existing case studies, guidelines and scientific publications in the case study context focus on taking the case from reality. Of course, realism and practical relevance are important components of a good case study, but the didactic quality should not suffer. Perhaps this is precisely why you would like to develop a case study yourself: You have not yet found a case study whose problem really fits your learning group or is transferable; or, you have found one that contains a real case but does not provide you with enough didactic guidance and support for use in your teaching. Therefore, we would like to provide some guidelines, with which you can develop case studies that have both practical relevance and didactic quality, and are thus designed to be conducive to learning.

3.1 How do I write a teaching note?

The teaching note serves both you and interested parties as an orientation and overview of the case study, as it reflects the thematic focus, the target group, the learning objectives and suitable areas of application. In addition, it contains all relevant basic didactic ideas that your case study includes. It is not written independently of the case, but always in association with it, as it forms the didactic basis for case creation.

3.1.1 Analysing the target group

In order to write a case study suitable for your learning group, you should first look at it carefully:

- For which course of study, for which events do I want to design the case study?
- What prior knowledge does the target group have, what expertise can I expect?
- What key competences does the learning group already possess? To what extent can they handle complex teaching-learning arrangements, solve problems and learn in a self-directed way?
- How much support do I have to give?
- What methodological skills can I expect?

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Answer these questions for yourself in your teaching note in order to determine the degree of difficulty of the case study itself, the process of working through it and the learning goals.

3.1.2 Determining the didactic orientation

Within the didactic orientation you set the learning objectives for your case study. The learning objectives should serve as the main guideline for you throughout the writing process to create the case study. The objectives describe what the case study is intended to convey, what knowledge you believe your students should gain, what competence acquisition is aimed for and what the students should learn in specific terms. In this way you can be sure that you adapt the case study to your learning group and prepare it against the background of didactic interests.

To this end, you can structure the case study according to knowledge, social, self and methodological competence in order to classify which learning objective should promote which competence.

> **Knowledge competence: Knowledge and understanding**
>
> **Social competence: Communication and cooperation**
>
> **Self-competence: Reflecting and acting independently and responsibly**
>
> **Methodological competence: Targeted use of knowledge, learning and work strategies** [1]
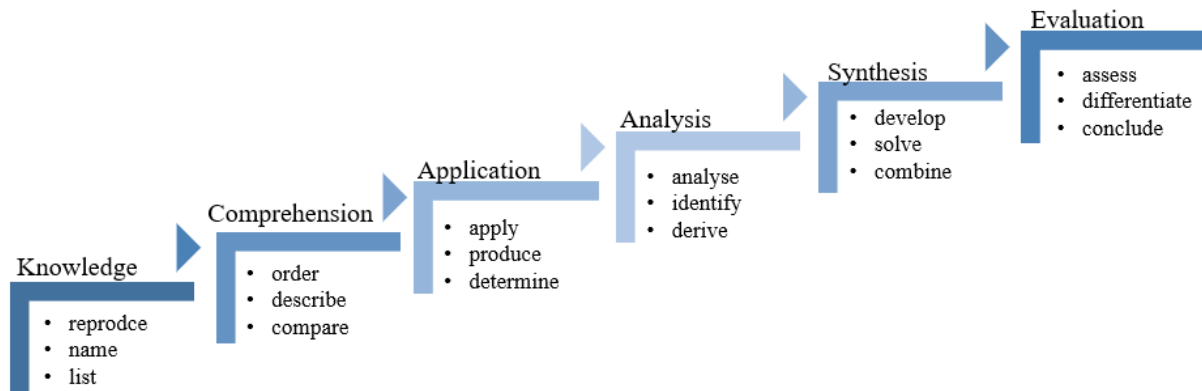
Within these areas of competence, you should then determine the learning objectives. The question that may be on your mind is: How do I set learning objectives? Learning objectives should include the addressees, a content component, the subject of knowledge, and a behavioural component, the action. You can use the following structure as a template:

The (addressees) should (behaviour component) (content component).

Example: **Students** should **analyse** the company's **marketing concept** taking into account the marketing mix and **develop** suggestions for improvement.

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[1] These definitions and division of competences are largely compatible with the EQF and include knowledge, skills, responsibility and autonomy (European Council 2017).

It is important to consider at which level the learning objective is aimed. For the formulation of the behavioural component in the form of a verb, and for hierarchical ordering, there are taxonomy levels that can be used to make a classification and serve as a tool for setting learning objectives.

In order to set up learning objectives that can be operationalised and, if necessary, to identify appropriate testing methods, you can check the learning objectives with regard to their comprehensiveness. You can use the SMART method for this:

A learning objective should be...

- … specific, so that the objective is designed for a certain area or a definable topic.
- … measurable, so that it can be verified (e.g., with criteria)
- … appropriate, so that the target is geared to the learning group in terms of the level of difficulty.
- … relevant, so that it is relevant to the learning group and its learning process.
- … terminated so that a time frame for achieving the goal is transparent.

Specific
Measurable
Appropriate
Relevant
Terminated

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3.1.3 Putting the case study into context

In order to give the users of your case study a concise overview, you should briefly place the case study in its context. To do this, you can outline the problem focus in a concise manner, name the sectoral specifics, indicate transfer possibilities to other economic sectors and summarise the various perspectives of the case.

An important note at this point, which also affects the case development itself: You should always take into account the cultural framework conditions. Think carefully about where, for example, the company in your case is based and what consequences this has for the processing of the case study. In the teaching note you can draw attention to special features of the national or international framework, so that you yourself and other readers can gain a certain sensitivity for the cultural framework and thus even stimulate intercultural learning in your target group.

3.1.4 Planning procedure and organisation

For other teachers as well as for you, the course of events and the organisation of the lessons play a role in the case study work. For this purpose, you should deal with the framework of your case study in the teaching note:

- How long will the case study be worked on?
- How will the case study be phased?
- How will the case study work be accompanied?
- What resources are necessary?

Duration	Phase/ Task of the lecturer	Activity of the learners
	1. Confrontation:	
	2. Information:	
	3. Exploration:	
	4. Resolution:	
	5. Disputation:	

You could fill out the template above for your teaching note. Think about a time frame, a suitable phasing and, if necessary, note the tasks of the lecturer (e.g., distributing case material, giving stimuli for discussion, ...) and the steps the learners should go through.

3.1.5 Providing opportunities for reflection

As the case study is an open-ended method, you should not specify any results, as these could result in steering and focusing the content. Instead, you can develop reflection questions that stimulate a fruitful discussion of the different solution variants.

The reflection impulses should, of course, only be used if the students themselves do not go through processes of consideration and argumentation within the group and plenary discussions.
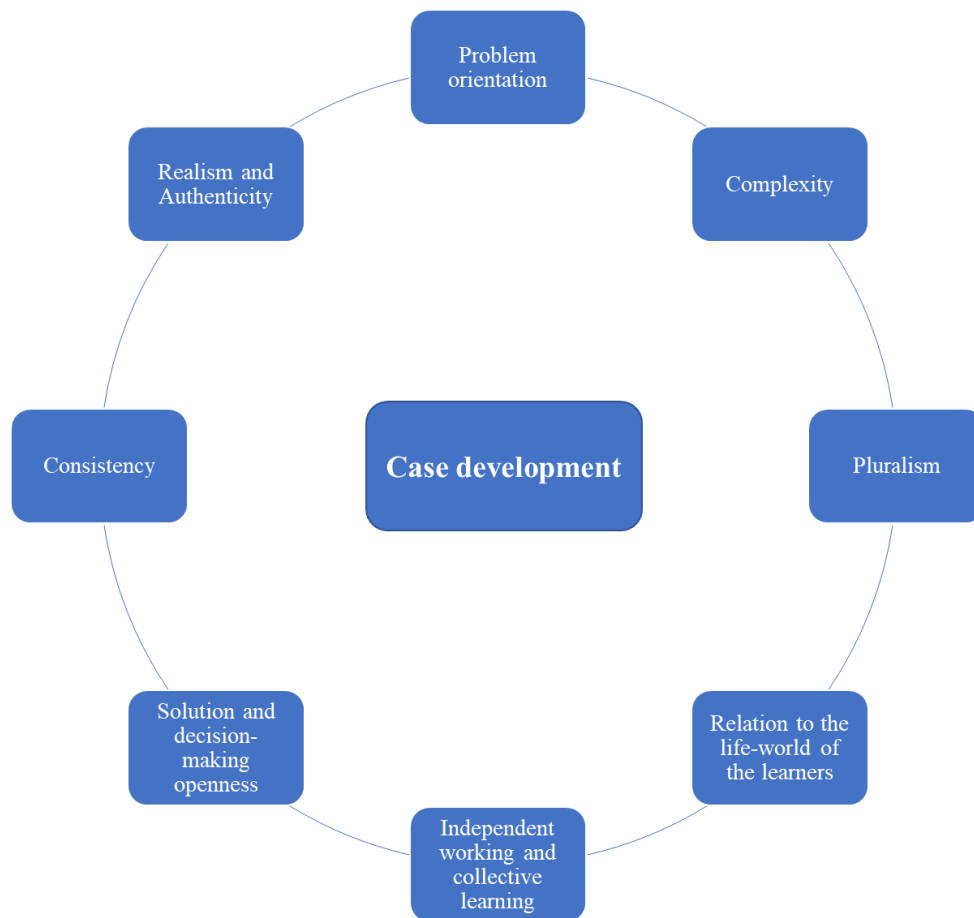
Examples:

- What are the weaknesses of the chosen strategies and why?
- Which of the solutions are more short-term, which are long-term, and why?
- Which solution do you consider to be the one that could best be implemented in reality, and why?
- What consequences of the market situation have you identified and are they relevant to your strategy?

3.2 How do I write a case?

The case should encourage learners to identify with the roles and perspectives, and to want to tackle the challenge. To do this, you can prepare the problem focus in your case with an introduction and the case background. At the beginning of your case, you **introduce** the persons involved, arrange the case situation in terms of time, and indicate the problem situation. For example, describe the historical development of the company or the economic sector, the background of the problematic situation, and address the company by shedding light on its structure, personnel or economic situation. Then comes the important **central problem situation**: This requires a problem as a 'trigger', but where are such problems? This guideline is not limited to the necessity of taking the problems from reality, or to search for suitable company situations, as is usual in typical business cases. Instead, this guide recommends that you focus on the didactic perspective, and develop the case study on the basis of your intentions, because from a didactic point of view, constructed problems are particularly pertinent as they can be adapted to the learning group and learning objectives of the case study.

So, think about which problem unites your learning objectives, which problems your learners might encounter in actual situations, and how you can look at it from different perspectives and with different stakeholders within the case. In the final part of your case, you can **summarise** the challenge for the protagonists in their contexts again, or include rhetorical questions as stimuli.

To ensure that your case study is conducive to learning, you can use the following dimensions to build your case along didactic guidelines:

These didactic dimensions should be taken into account when writing your case in order to ensure learning support and didactic quality. How? We will show you:

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Problem orientation

Pursue a problem orientation by considering a central problem and equipping it with interactions and different levels, so that you can design it as a complex challenge which will test the problem-solving ability of your students.

Complexity and pluralism

Your case should also have complexity and pluralism. The world is becoming more complex every day and professional and private situations are becoming more diverse — this should also be reflected in your case. Try to give your case dynamic dependencies and interlinked factors, as well as diverse perspectives and roles, so that multidimensional and networked thinking is activated and stimulated in your students.

Relation to the life-world of the learners

To best support the learning process and increase the motivation of learners, you should base your case on the lifeworld of the learning group. Look for problems and subject areas that your students encounter in their work and everyday life, so that a transfer to cope with professional and private situations is also made possible.

Independent working and collective learning

Design your case in such a way that the learners can solve it independently, and collaborative learning can take place. Both the case, and the supplementary material, should allow for a self-directed learning process, or indicate possibilities for further information gathering.

Solution and decision-making openness

The case should not provide a direction for solutions, but should give room for varying solutions and decisions, in order to promote thinking and decision-making processes as well as consideration, networking and effective, reflective discussions.

Consistency

Despite the complexity and openness required, your case should have a common thread to make a target focus visible to learners so that they do not get lost in trivial or incidental issues.

Realism and authenticity

Your case should be realistic and authentic. In other words, you should neither choose a special case (even if it may be particularly exciting) nor choose a case outside the learners' imagination and reality. This is the only way to ensure transferability.

3.3 How do I develop additional material?

Here you are allowed to be creative again; in order to make your case as realistic as possible, you can add material to your case. You can use real-life material, such as statistics, newspaper articles, maps or flyers. At this point, however, you should definitely pay attention to copyright law or possible licensing requirements. To get around this hurdle, you can also model material instead.

Examples: Fictitious email correspondence, telephone logs, notes, flyers, building plans, organisational structure of the company, staff lists, minutes of meetings, CVs, advertisements, newspaper articles, photos.

These not only make your case look more authentic, but can also lay further tracks, contain stimuli and give it a creative boost. Again, you should keep in mind that the material should not show a direct solution, but rather visually underpin the case and support the complexity.

Step 4: Reflecting based on guiding questions

The following guiding questions may not only help you in the writing process itself, but also serve as a reflection and testing of your product afterwards.

Guiding question	Notes/ Needs/ Ideas	✓
Have I chosen the right case study variant for my purposes?		
Is the case study written at an appropriate linguistic and technical level for my learning group?		
Have I identified specific learning objectives that can be achieved with the case study?		
Have I thought of a suitable editing process that the students go through?		
Have I included necessary information on the context of the case study?		
Have I determined possible stimuli for reflection and discussion?		
Have I formulated all important information about the target group, the learning objectives, the case study variant, its context, an adequate process and possibilities for reflection in the teaching note so that other interested lecturers could also use the case study?		
Have I constructed a complex problem in the case that is of interest to the learners?		
Have I constructed my case in a complex and multi-perspective way?		
Does my case relate to the learners' life world?		
Does my case allow a self-directed learning process?		
Is my case open to solutions and decisions?		
Does my case have a red thread?		
Is my case realistic and authentic?		
Is the additional material appropriate and motivating?		
Have I considered or obtained possible copyrights or permissions to use data/material?		

Case studies developed with this manual, as well as an Online-Planning-Guide for the digital, cross-location use of case studies in cooperation with other universities, and a partner-tool for contacting interested institutions, can be found at: https://www.e3cases.uni-koeln.de/en/.

Appendix: Practical tips for the start

Key point	Advice from practice
Setting learning objectives	Think carefully at the beginning: What do you want learners to learn? With the help of the above, set specific learning objectives — these will serve as the basis for your entire writing process. Keep asking yourself: Is the case conducive to achieving the learning objectives? Does this story fit with the learning objectives?
Creating a problem	First, think about what problems your learners might face at present or later in their professional lives. Build a small problem first, then it is easier to expand it and add different dependencies. Then fill the problem orientation with different roles and protagonists/stakeholders.
Obtaining data or material	You can not only use the traditional ways of researching data (such as the internet, databases, etc.) but also get personal impressions, for example through interviews or telephone calls.
Handling of official/public data	You should respect the copyright and, if necessary, obtain permission to use the data.
Handling of internal (company) materials	In the case that the use of materials is not possible or permitted, these can at least serve as orientation. You can make the names, dates, etc. anonymous and change them — in this way, the practical content, which is important from a didactic point of view, is preserved.
Using the data/ material in the case	You can not only put the data or materials in the appendix, but of course also incorporate them directly into your case. For example, the protagonist could find this data during his own research or ask for it himself from service providers or companies.

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