



HEI-TRAIN. HEI Transformation for
Entrepreneurship and AI-Driven Innovation



Funded by the European Union –
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D2.3 IFS Pilot Course Report “Freelance school”





What business plan is

- **Business plan** is a way of describing the feasibility of implementing a certain business idea
- **Business plan** is a document containing comprehensive information about any kind of project: its goals, objectives, business processes, structure, cash flows, problems, prospects, etc.
- **Business plan** is an objective assessment of one's own entrepreneurial activity and at the same time a necessary tool for project and investment decisions in accordance with market needs and the current situation





Five main goals of a business plan

1. Use for business strategy development
2. Planning
3. Raising funds
4. Attracting potential partners
5. Control and management tool



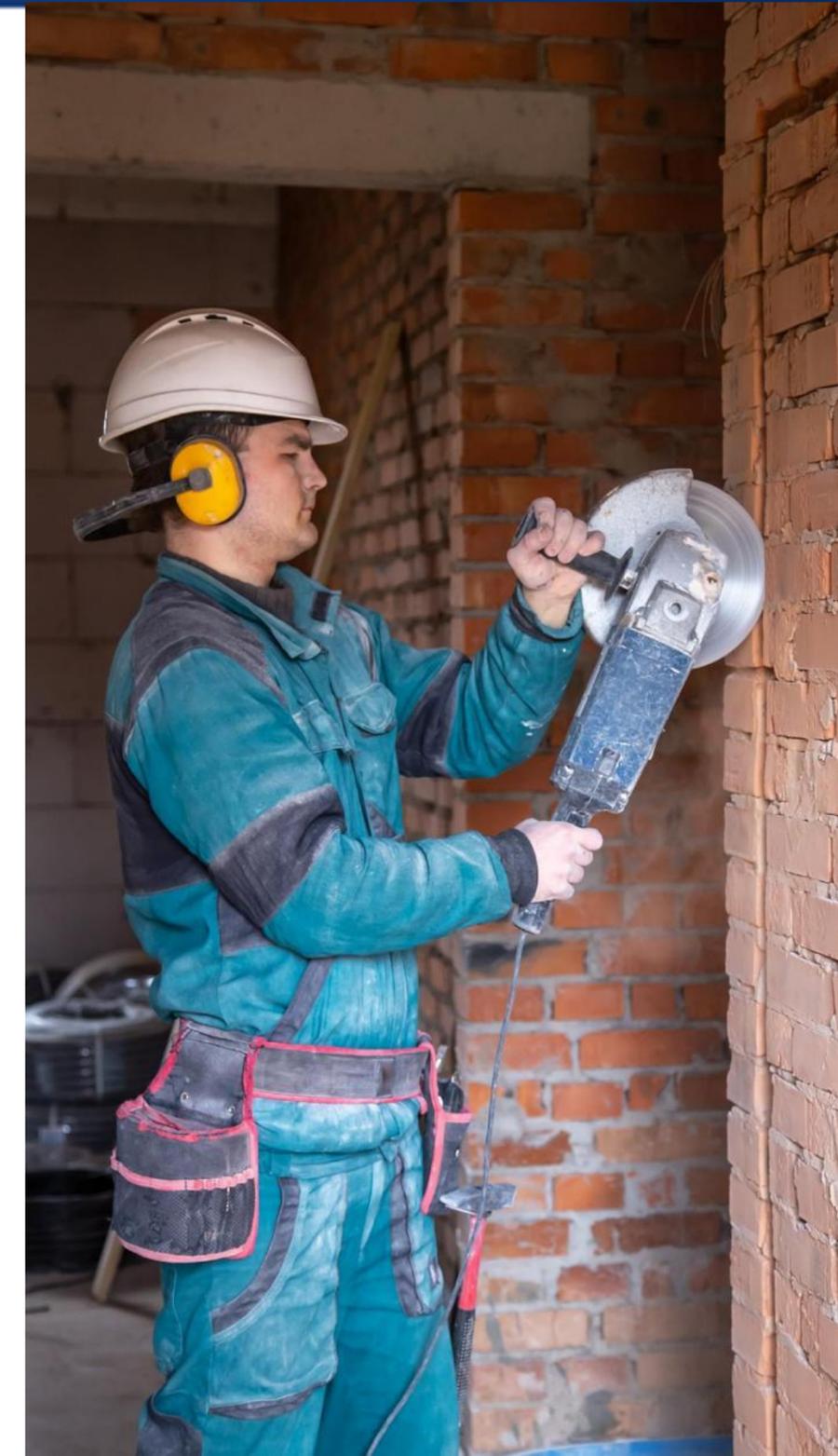
WHO NEEDS BUSINESS PLANS?

Internal users

business idea initiator,
new business founders

External users

potential investors,
lenders, partners





Key issues when developing a business plan

- What problems do you solve?
- Why can you solve this problem?
- How does your product/service solve this problem?
- What improvements do you have over existing solutions?
- How will you build a profitable, reliable business?





Business plan structure

- Business idea description
- Market research and analysis
- Marketing plan
- Operational plan
- Strategic planning overview
- Proposed areas of grant use
- Financial plan 12-month income and expenditure plan
- Appendices



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EXAMPLE

TO PUT A TAMPLATE FOR EACH COUNTRY



OPERATIONAL PLAN

An operating plan

is an overall strategy
that states what you want to achieve
and the steps to get there.

Main sections

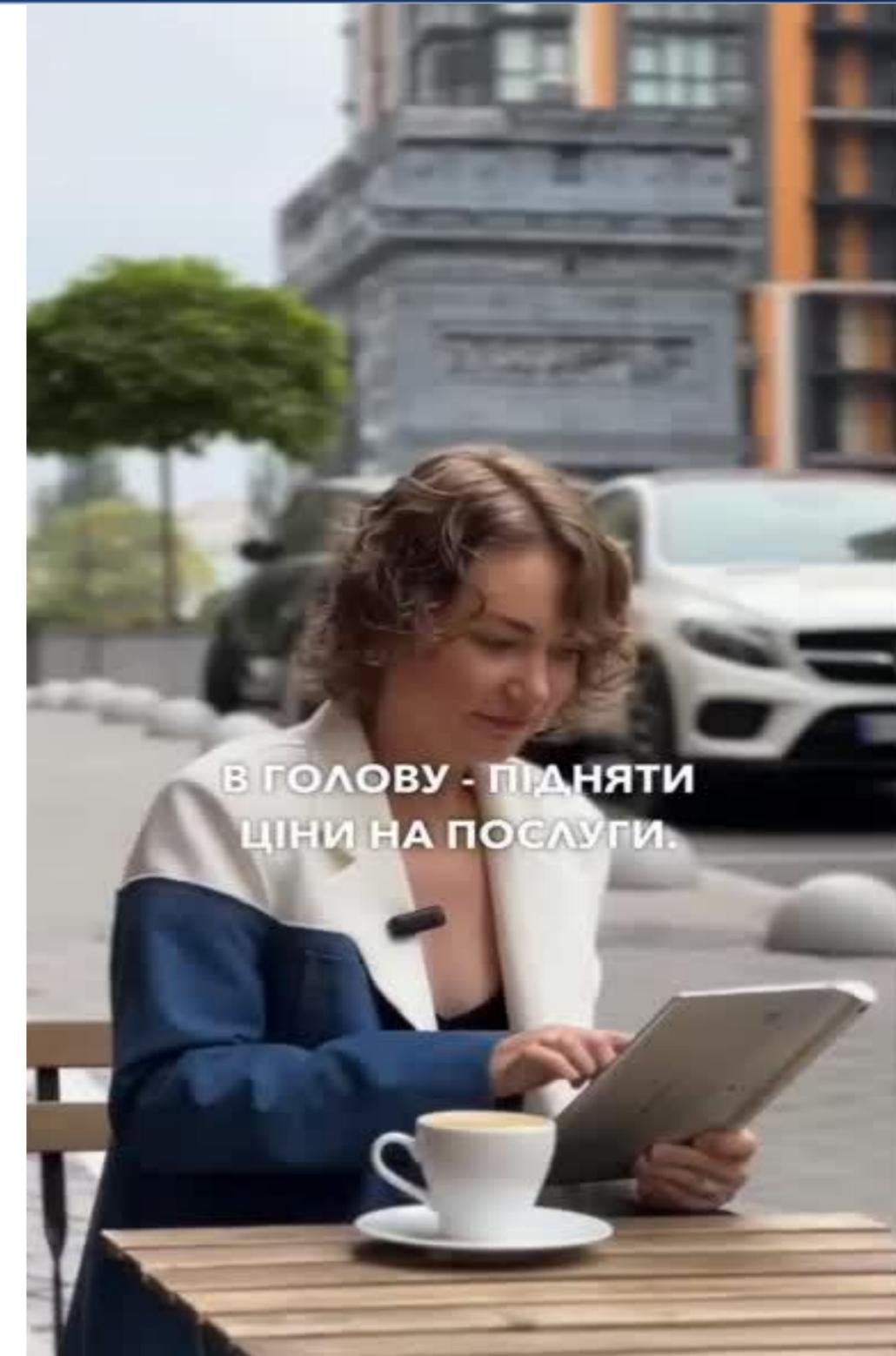
Sales revenue

Fixed costs

Variable costs

Depreciation

Taxes



COST

$C = \text{Fixed costs} /$
 production volume
 $+ \text{variable costs}$
 per unit

$C = \text{Costs} /$
 production volume

In the classical sense, these are the costs of the enterprise for the production (production cost) and sale (sales cost) of its own products.

The sum of the costs for the production and sale of goods is called the full cost.

Fixed costs are those costs whose amount does **not depend on the volume of production**, that is, they do not change when the volume of production changes (for example, the cost of lighting a workshop does not depend directly on the number of individual types of products manufactured in it).

Variable costs are costs whose amount changes proportionally depending on changes in the volume of production (for example, the cost of basic materials for the manufacture of products).



Variable costs	<ul style="list-style-type: none">▪ Materials and components▪ Machinery and equipment▪ Production workers' salaries▪ Transportation costs▪ Commissions
Fixed costs	<ul style="list-style-type: none">▪ Rent▪ Depreciation and leasing▪ Lighting and heating▪ Managers' salaries▪ Advertising▪ Cleaning and security▪ Insurance
	<ul style="list-style-type: none">▪ Cost of the loan▪ Contingencies▪ Taxes



Break-even point is the volume of production and sales of products at which revenues compensate for costs, and with the production and sale of each subsequent unit of goods, the enterprise begins to make a profit. In other words, **the break-even point is the moment when the volume of revenue catches up with the volume of expenses, and at this point the enterprise breaks even.**

The break-even point is determined in units of production or in monetary terms. It is also called the **profitability threshold**, the critical point.

This indicator allows you to understand how many units of goods need to be sold or **what amount of revenue to receive for your enterprise to start making a profit.** The break-even point also makes it possible to determine the minimum level of revenue below which production simply will not pay off.



The break-even point can be expressed in monetary terms,

that is, the level of sales revenue required to cover all costs and reach zero profit before moving into profitability.

$$BEP = \frac{\textit{Fixed Costs}}{\textit{Contribution Margin Ratio}}$$

where:

BEP — break-even point in monetary terms;

Sales Revenue — total income from sales;

Fixed Costs — costs that remain constant regardless of production volume;

Variable Costs — costs that change in proportion to output;

Contribution Margin Ratio = (Sales Revenue – Variable Costs) / Sales Revenue.



The break-even point can also be calculated **in physical units**,

that is, in terms of the number of products to be sold:

$$BEP = \frac{\textit{Fixed Costs}}{\textit{Price per Unit} - \textit{Variable Cost per Unit}}$$

where:

BEP — break-even point in units;

Fixed Costs — costs that remain constant regardless of production volume;

Price per Unit — selling price of one product;

Variable Cost per Unit — average variable cost per product.



GROUP WORK

- **indicate variable costs, fixed costs**
- **calculate the cost of a unit of production**





You want to start a donut production business and plan to sell at least 500 units per day, 30 days per month, at a price of EUR 10 per unit. The total expected monthly revenue is EUR 150,000.

You have calculated that the cost of ingredients and packaging for one donut will be EUR 4.

These are variable costs, which may change depending on the number of units sold.

Fixed costs include expenses that do not depend on sales performance, for example:

- rent — EUR 5,000 per month,
- utilities — EUR 2,000,
- staff salaries — EUR 20,000,
- taxes — EUR 10,000 (assumed to be fixed in this case),
- other expenses — EUR 2,000.
- In total, fixed costs amount to EUR 39,000.

ASSIGNMENT:

Calculate the break-even point in monetary terms.

Calculate the break-even point in units.

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SOLUTION 1

Calculation of the break-even point in monetary terms

By substituting the values into the first formula,

$$BEP = \frac{(Revenue \times Fixed Costs)}{(Revenue - Variable Costs)}$$

where:

- **BEP** — break-even point in monetary terms;
- **Revenue** — sales revenue;
- **Fixed Costs** — fixed expenses;
- **Variable Costs** — variable expenses.

we obtain the break-even point in monetary terms:

You need to sell donuts worth **EUR 65,000** in order for the production to break even. It is easy to see that under the given parameters, such a business will reach the break-even point already in the first month of operation.



SOLUTION 2

Calculation of the Break-even Point in Natural Units

To calculate the break-even point in natural units, it is necessary:

$$BEP = \text{Fixed costs} / (P - AVC)$$

where

- **BEP** — break-even point in natural units;
- **Fixed costs** — constant (fixed) expenses;
- **P** — price per unit of product;
- **AVC** — average variable cost per unit of product.

Variable costs (€4 for one donut multiplied by the number of sales — 15,000 pcs. per month) are divided by the difference between the selling price and the average variable cost per unit of product (€10 — €4).

As a result, we get that it is necessary to sell **10,000 donuts** so that under these conditions the business reaches the break-even point.



FINANCIAL PLAN

The financial plan is designed to describe the procedures for financing investment costs and the formation of working capital, and is developed to determine the effectiveness of the proposed project solutions.

Main sections:

- Characteristics of the external economic environment (financing rates, reinvestment, discounting, inflation index, exchange rates, etc.).
- Principles of building a financial model of the project (model structure, calculation step, currency unit, etc.).
- Project financing strategy (structure and terms of project financing).
- Cash flow forecast (CF - Cash Flows) - carried out using the cash method.
- Project financial results.
- Financial reports (balance sheet (B/S), profit and loss statement (P&L)).



№	Receipts and Expenditures	Month												
		1	2	3	4	5	6	7	8	9	10	11	12	
1.	Balance of funds at the beginning of the month													
2.	Receipts:													
2.1	Revenue from sales													
2.2	Other (specify; add rows if needed)													
3.	Total receipts (sum of items 2.1, 2.2, 2.3)													
4.	Expenditures													
4.1	Raw materials													
4.2	Wages													
4.3	Payroll contributions													
4.4	Equipment													
4.5	Rent													
4.6	Taxes													
4.7	Other (specify; add rows if needed)													
5.	Total expenditures (sum of items 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7)													
6.	BALANCE (row 1 + row 3 – row 5)													

PLAN OF CASH FLOWS

Prototyping and testing a business idea

- **A prototype is** a physical or digital object that is the result of an idea that is fully or partially represented.

A prototype is NOT a ready product.

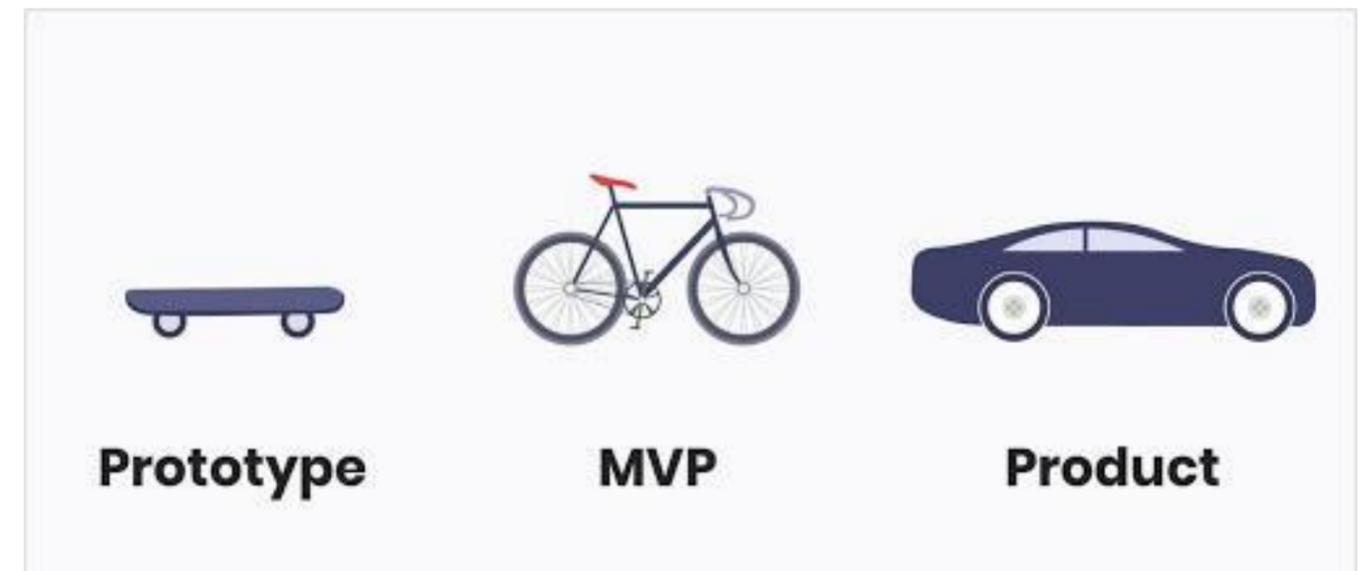


Cardboard toaster prototype

WHAT IS THE DIFFERENCE BETWEEN A PROTOTYPE AND A MVP?

- The prototype is **NEVER** commercialized or industrialized.
- It is intended to be presented and driven by our reference users **to get feedback on our hypotheses.**

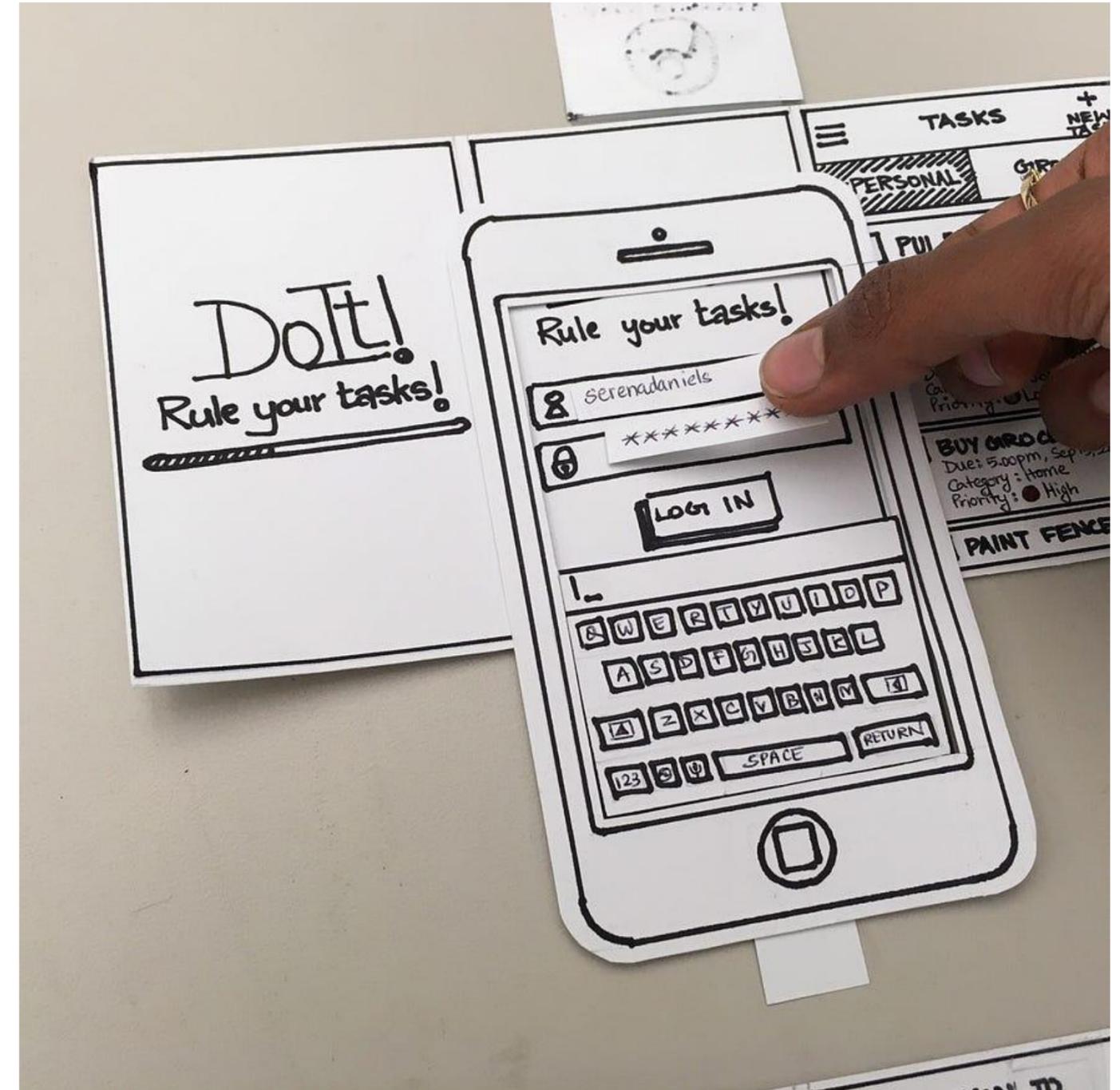
If the prototype does not meet expectations, we come up with new elements of the project, change/add to the idea (there may be several iterations).



MVP - Minimum viable product — a product with minimal functionality that can be given to users for use.

WHY DO I NEED A PROTOTYPE?

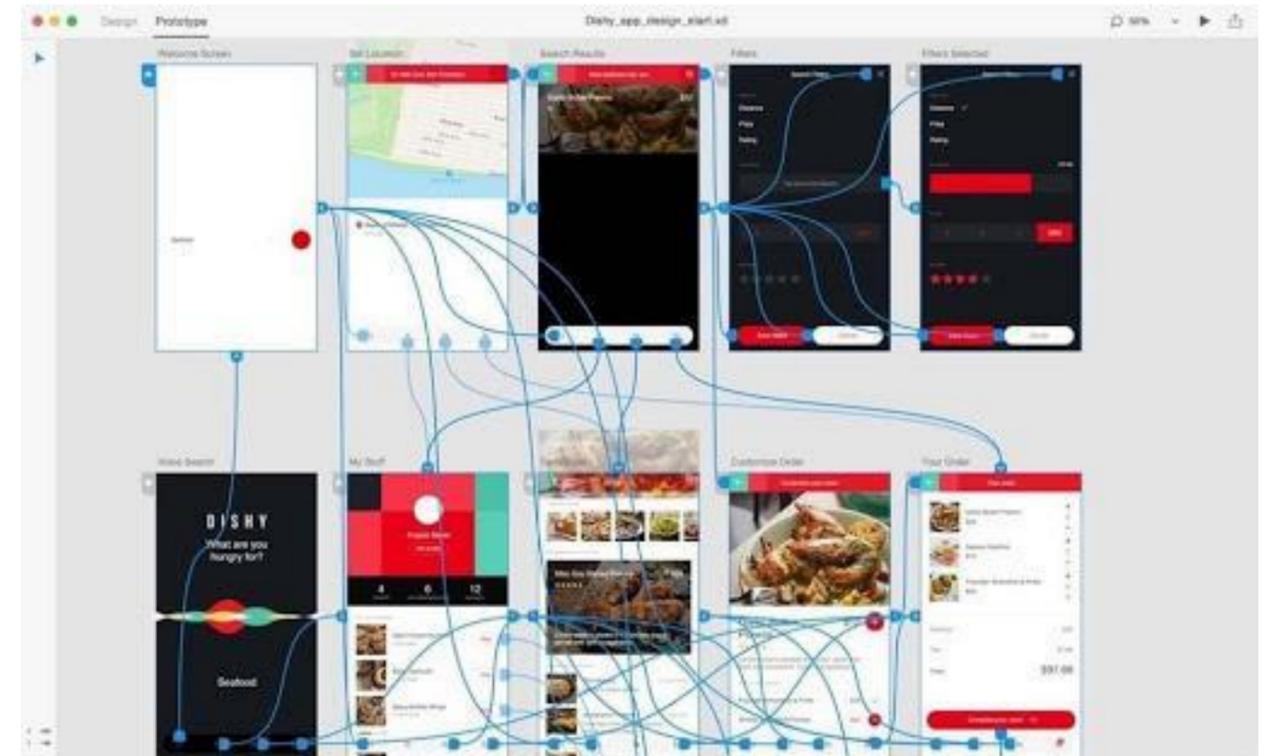
- Disprove or confirm your assumptions
- Make your concepts interactive
- Speak the same language with your team
- Save time, money and energy



WHAT ARE PROTOTYPES ?

physical

digital



- Paper or cardboard mockups
- Storyboarding
- 3D printing, clay, LEGO

- [Adobe XD](https://www.adobe.com/products/xd.html)
- <https://origami.design/>
- <https://tumult.com/hype/>



PROTOTYPE TESTING

Surveys and feedback gathering are an important aspect of testing. They allow users to express their opinions and wishes about the product, and the company to receive valuable suggestions and ideas for its improvement.



User testing is the process of observing how users interact with a prototype.

This allows you to get a complete picture of how users interact with a product, which can help improve its design/functionality.



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**THANK YOU FOR YOUR
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Day 6