

# The Tech Shop Challenge

## Create a Dynamic Webpage using JS

### The Tech Shop Challenge

Build a dynamic webpage using “vanilla” JavaScript. Follow the guidelines given below, but feel free to customize the app if you want.

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*It must meet the minimum requirements prescribed.*

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#### 1) Set up the development environment

Make sure you have installed at least the following tools:

- A text editor of your choice (Visual Studio Code recommended)
- Live Server VS add-on

You will also use your Browser’s Developer Tools for testing and debugging.

#### 2) Review the given wireframe

You can follow the wireframe provided (Appendix B) or you can create your own design if it meets the minimum requirements set out below in Step 4.

#### 3) Write HTML & CSS as needed

Use HTML and CSS to structure and design your application.

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*You **may** use a CSS library to style and make your webpage responsive.*

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#### 4) Use plain JavaScript (no frameworks) to build the following minimum requirements into your webpage (See Appendix A for detailed specs):

- 1) **The Bank** – an area where you will store funds and make bank loans
- 2) **Work** – an area to increase your earnings and deposit cash into your bank balance
- 3) **Laptops** – an area to select and display information about the merchandise

#### 5) Submit

- a) If you created your own wireframe, upload it as PDF to Moodle.
- b) Create a git repository and ensure its visibility is set to “private” and add your lecturer as a maintainer. Upload the latest version of your app before the deadline of the assignment.
- c) **Additional challenge:** Try to host your web page using a hosting provider of your choice.
  - a) GitHub Pages
  - b) GitLab Pages (Requires adding of card information but is free)
  - c) Vercel

## Appendix A: Requirements for the Tech shop

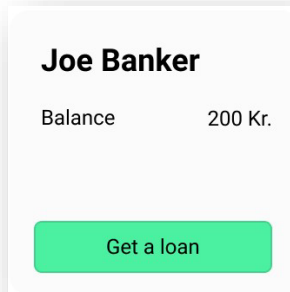


Figure 1 The Bank Section



### 1. The Bank (Figure 1)

#### 1.1 Balance

The bank shows a “Bank” balance in your currency. This is the amount available for you to buy a laptop.

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*TIP: Look at the [Number format](#) feature in JavaScript*

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#### 1.2 Outstanding Loan (Only visible after taking a loan)

Shows the outstanding Loan value. This should be reduced as loan paid back.

#### 1.3 Get a loan

The Get a loan button will attempt to get a loan from the bank. When the Get a loan button is clicked, it must show a [“Prompt” popup box](#) that allows you to enter an amount.

*Constraints on Get a loan button:*

1. You *cannot* get a loan more than double of your bank balance (*i.e.*, If you have 500 you *cannot* get a loan greater than 1000.)
2. You *cannot* get more than one bank loan before repaying the last loan.
3. You may not have two loans at once. The initial loan should be paid back in full.

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*TIP: Remember to check for value types before doing mathematical operations*

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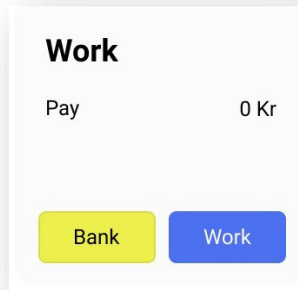


Figure 2 Work Section



## 2. Work (Figure 2)

### 2.1 Pay

The pay or your current salary amount in your currency. Should show how much money you have earned by “working”. This money is NOT part of your bank balance.

### 2.2 Bank Button

The bank button must transfer the money from your *Pay/Salary balance* to your *Bank balance*. Remember to reset your pay/salary once you transfer.

#### *Constraints on Bank button:*

1. If you have an outstanding loan, 10% of your salary MUST first be deducted and transferred to the outstanding Loan amount.
2. The balance after the 10% deduction may be transferred to your bank account.

### 2.3 Work button

The work button must increase your *Pay balance* at a rate of 100 on each click.

### 2.4 Repay Loan button

Once you have a loan, a new button labeled “Repay Loan” should appear. Upon clicking this button, the full value of your current **Pay** amount should go towards the outstanding loan and NOT your bank account.

Any remaining funds after paying the loan may be transferred to your bank account.

## Laptops

Intol Celeroon E10 ▼

### Features:

It has a screen  
There's a keyboard  
(Some keys might be missing)



## Intol Celeroon E10

1500 NOK

This laptop will turn on! It is perfect for the first time user who likes to have a computer around!

BUY NOW

Figure 3 Laptop Selection Area

Figure 4 Laptop Information Area



### 3. Laptops

The laptops section has 2 parts: laptop selection area (Figure 3) and info section (Figure 4)

#### 3.1 Laptop selection (Figure 3)

Use a select box to show the available computers. The feature list of the selected laptop must be displayed here. Changing a laptop should update the user interface with the information for that selected laptop.

##### 3.1.1 Laptop API

The data for the laptops will be provided to you via a RESTful API that returns JSON data.

The endpoint for the API is: <https://hickory-quilled-actress.glitch.me/computers>

The endpoint will return an array of computers, each computer will have the following properties:

```
{
  "id": 1,
  "title": "Classic Notebook",
  "description": "A little old, but turns on.",
  "specs": [
    "Has a screen",
    "Keyboard works, mostly",
    "32MB Ram (Not upgradable)",
    "6GB Hard Disk",
    "Comes with Floppy Disk Reader (Free) - Requires cable",
    "Good exercise to carry"
  ],
  "price": 200,
  "stock": 1,
  "active": true,
  "image": "assets/images/1.png"
}
```

*Use this API to populate your laptop selection dropdown box.*

#### 3.2 Info section (Figure 4)

The Info section is where the image, name, and description as well as the price of the laptop must be displayed.

##### 3.2.1 Images

The path to the image of a laptop can be found in the response. Remember to use the base URL **WITHOUT** the computers path.

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**Example Link:**

<https://hickory-quilled-actress.glitch.me/assets/images/1.png>

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### 3.2.2 Buy Now button

The buy now button is the final action of your website. This button will attempt to “Buy” a laptop and validate whether the bank balance is sufficient to purchase the selected laptop.

If you do not have enough money in the “Bank”, a message must be shown that you cannot afford the laptop.

When you have sufficient “Money” in the account, the amount must be deducted from the bank and you must receive a message that you are now the owner of the new laptop!

## Appendix B: Sample Wireframe for the Tech shop

