

JS Advanced: Exam 18.11.2018

Problem 4. Real Estate Agency

Write a JavaScript program that **registers** and **finds** a real estate offers based on a given criteria.

Use the **index.html** and **app.js** files to solve this problem.

Note: You **can't** and you have **no permission** to change directly the given html code (index.html file).

Submission

You should **submit only** the **app.js** file

Expected functionality:

Reg offer field:


Rent price and commission rate should be **numbers**. Rent price must be **positive number** (greater than zero (0)). Commission rate should be greater or equal to zero (0) and lower or equal to one hundred (100). Apartment type should be **non-empty string** and **should not contain ':'** character.

If some of these conditions or all of them **are not met**, you should print the following message:
'Your offer registration went wrong, try again.'

If **all is good** you should 'post' the new offer on the agency and print the following message:
'Your offer was created successfully.'

After every click on the Reg Offer button (no matter of the result) the three fields (Rent price, Apartment type and Commission rate) must be **cleared**.

Reg offer Example:




Agency profit: 0 lv.

Reg offer	Find offer
<input type="text" value="Rent price..."/>	<input type="text" value="Family budget...."/>
<input type="text" value="Apartment type..."/>	<input type="text" value="Apartment type..."/>
<input type="text" value="Commission rate..."/>	<input type="text" value="Family name..."/>
<input type="button" value="REG OFFER"/>	<input type="button" value="FIND OFFER"/>

Reg offer Result:

When we click the Reg offer button, the result should be...



Agency profit: 0 lv.

Rent: 700
Type: two room apartment
Commission: 50

Reg offer	Find offer
<input type="text" value="Rent price..."/>	<input type="text" value="Family budget...."/>
<input type="text" value="Apartment type..."/>	<input type="text" value="Apartment type..."/>
<input type="text" value="Commission rate..."/>	<input type="text" value="Family name..."/>
<input type="button" value="REG OFFER"/>	<input type="button" value="FIND OFFER"/>

Your offer was created successfully.

Successfully created, because every condition are met.

Reg offer Example 2

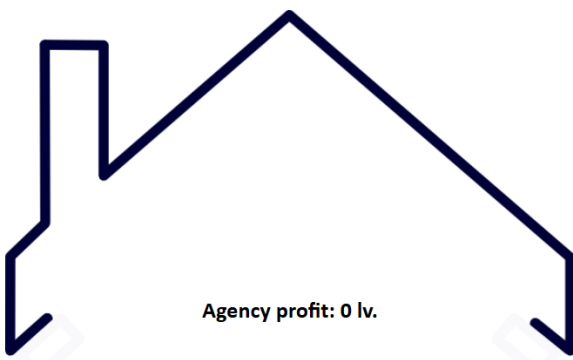


Agency profit: 0 lv.

Reg offer	Find offer
-1	Family budget....
Pesho	Apartment type...
-2	Family name...
<input type="button" value="REG OFFER"/>	<input type="button" value="FIND OFFER"/>

Example 2 Result:

When we click the Reg offer button, the result should be...



Agency profit: 0 lv.

Reg offer	Find offer
Rent price...	Family budget....
Apartment type...	Apartment type...
Commission rate...	Family name...
<input type="button" value="REG OFFER"/>	<input type="button" value="FIND OFFER"/>

Your offer registration went wrong, try again.

We do not create the new offer because one or all of the conditions are not met!

Code structure before create the new offer:

```
<body onload="realEstateAgency()">
  <section>
    <div id="roof">
      <h1>Agency profit: 0 lv.</h1>
    </div>
    <div id="building"></div>
    <div id="offerManager">
      <div id="regOffer">
        <h2>Reg offer</h2>
        <input type="text" name="apartmentRent" placeholder="Rent price...">
        <input type="text" name="apartmentType" placeholder="Apartment type...">
        <input type="text" name="agencyCommission" placeholder="Commission rate...">
        <button name="regOffer">Reg offer</button> event
      </div>
      <div id="findOffer">
        <h2>Find offer</h2>
        <input type="text" name="familyBudget" placeholder="Family budget...">
        <input type="text" name="familyApartmentType" placeholder="Apartment type...">
        <input type="text" name="familyName" placeholder="Family name...">
        <button name="findOffer">Find offer</button> event
      </div>
      <div id="notifications">
        <p id="message"></p>
      </div>
    </div>
  </section>
</body>
```

Code structure after we create the new offer:

```
<body onload="realEstateAgency()">
  <section>
    <div id="roof">
      <h1>Agency profit: 0 lv.</h1>
    </div>
    <div id="building">
      <div class="apartment">
        <p>Rent: 700</p>
        <p>Type: two room apartment</p>
        <p>Commission: 50</p>
      </div>
    </div>
    <div id="offerManager">
      <div id="regOffer">
        <h2>Reg offer</h2>
        <input type="text" name="apartmentRent" placeholder="Rent price...">
        <input type="text" name="apartmentType" placeholder="Apartment type...">
        <input type="text" name="agencyCommission" placeholder="Commission rate...">
        <button name="regOffer">Reg offer</button> event
      </div>
      <div id="findOffer">
        <h2>Find offer</h2>
        <input type="text" name="familyBudget" placeholder="Family budget...">
        <input type="text" name="familyApartmentType" placeholder="Apartment type...">
        <input type="text" name="familyName" placeholder="Family name...">
        <button name="findOffer">Find offer</button> event
      </div>
      <div id="notifications">
        <p id="message">Your offer was created successfully.</p>
      </div>
    </div>
  </section>
</body>
```

Code structure if reg offer went wrong:

```
<body onload="realEstateAgency()">
  <section>
    <div id="roof">
      <h1>Agency profit: 0 lv.</h1>
    </div>
    <div id="building"></div>
    <div id="offerManager">
      <div id="regOffer">
        <h2>Reg offer</h2>
        <input type="text" name="apartmentRent" placeholder="Rent price...">
        <input type="text" name="apartmentType" placeholder="Apartment type...">
        <input type="text" name="agencyCommission" placeholder="Commission rate...">
        <button name="regOffer">Reg offer</button>
      </div>
      <div id="findOffer">
        <h2>Find offer</h2>
        <input type="text" name="familyBudget" placeholder="Family budget...">
        <input type="text" name="familyApartmentType" placeholder="Apartment type...">
        <input type="text" name="familyName" placeholder="Family name...">
        <button name="findOffer">Find offer</button>
      </div>
      <div id="notifications">
        <p id="message">Your offer registration went wrong, try again.</p>
      </div>
    </div>
  </section>
</body>
```

Find offer field:

Family budget must be **positive number (greater than zero (0))**. Apartment type and Family name should be **non-empty strings**.

If **all is good** you should start searching through all registered offers into the agency. The first offer that meets the requirements, namely:

- The type of apartment you are looking for is **absolutely the same** as the registered one.
- The family budget needs to be **enough** to take the current apartment: rent + commission in percent of the current rental of the apartment.

Is leased! That means you should change the current apartment content and print the following message: 'Enjoy your new home! :)'.

Also **on every successfully found offer**, the real estate agency, take the current commission from both sides.

Example:

We find successfully two room apartment with 500 rent price and the commission for it is 50%. Current family needs to have at least 750 to take that offer (500 rent and 250 commission). If

they do, the agency takes this 50% from the current family and 50% more from the other side (the owner of the apartment).

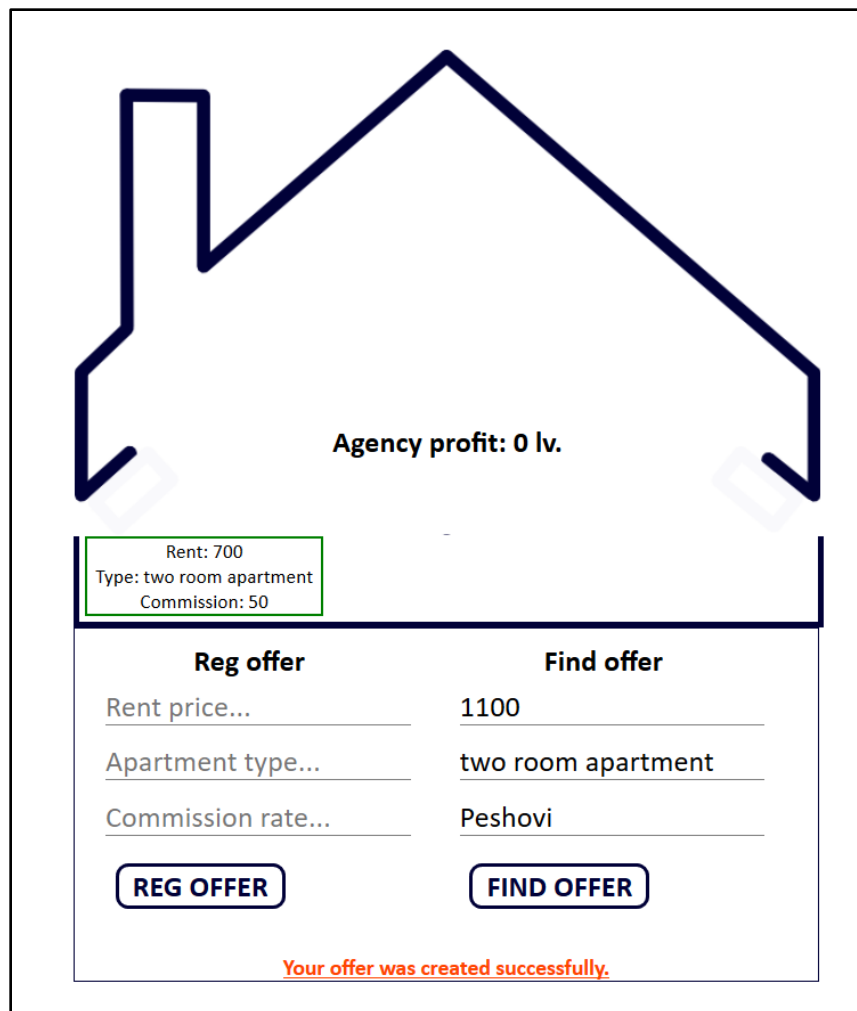
Note:

The agency's profit is for all successfully found offers. The **h1 element** into the **#roof** which contains the sentence ``Agency profit: {profit} lv.`` Shows the **total** profit for all offers.

If some of these conditions or all of them **are not met**, you should print the following message: `'We were unable to find you a home, so sorry :('`

After every click on the Find Offer button (no matter of the result) the three fields (Family budget, Apartment type and Family name) must be **cleared**.

Find offer Example:



Agency profit: 0 lv.

Rent: 700
Type: two room apartment
Commission: 50

Reg offer	Find offer
Rent price...	1100
Apartment type...	two room apartment
Commission rate...	Peshovi
REG OFFER	FIND OFFER

Your offer was created successfully.

Find offer Example Result:

When we click the Find offer button, the result should be...

Agency profit: 700 lv.

Peshovi
live here now

MOVEOUT

Reg offer	Find offer
Rent price...	Family budget...
Apartment type...	Apartment type...
Commission rate...	Family name...
REG OFFER	FIND OFFER

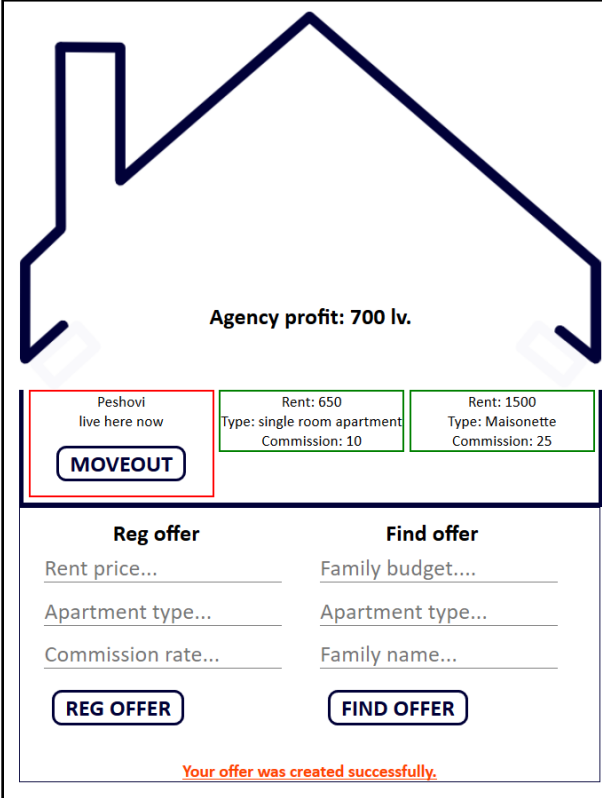
Enjoy your new home! :))

Successfully finded and rented out, because every condition are met.

Find Offer Example Result Code Structure:

```
<body onload="realEstateAgency()">
  <section>
    <div id="roof">
      <h1>Agency profit: 700 lv.</h1>
    </div>
    <div id="building">
      <div class="apartment" style="border: 2px solid red;">
        <p>Peshovi</p>
        <p>live here now</p>
        <button>MoveOut</button> event
      </div>
    </div>
    <div id="offerManager">
      <div id="regOffer">
        <h2>Reg offer</h2>
        <input type="text" name="apartmentRent" placeholder="Rent price...">
        <input type="text" name="apartmentType" placeholder="Apartment type...">
        <input type="text" name="agencyCommission" placeholder="Commission rate...">
        <button name="regOffer">Reg offer</button> event
      </div>
      <div id="findOffer">
        <h2>Find offer</h2>
        <input type="text" name="familyBudget" placeholder="Family budget...">
        <input type="text" name="familyApartmentType" placeholder="Apartment type...">
        <input type="text" name="familyName" placeholder="Family name...">
        <button name="findOffer">Find offer</button> event
      </div>
      <div id="notifications">
        <p id="message">Enjoy your new home! :))</p>
      </div>
    </div>
  </section>
</body>
```

MoveOut Example:



The form is titled "MoveOut Example" and is enclosed in a dark blue border. At the top, there is a large, stylized house icon. Below the icon, the text "Agency profit: 700 lv." is displayed. The form is divided into several sections. On the left, there is a section for "Peshovi live here now" with a "MOVEOUT" button. To the right of this, there are two green boxes. The first box contains "Rent: 650" and "Type: single room apartment" with a "Commission: 10". The second box contains "Rent: 1500" and "Type: Maisonette" with a "Commission: 25". Below these sections, there are two columns of input fields. The left column is titled "Reg offer" and contains fields for "Rent price...", "Apartment type...", and "Commission rate...", with a "REG OFFER" button at the bottom. The right column is titled "Find offer" and contains fields for "Family budget...", "Apartment type...", and "Family name...", with a "FIND OFFER" button at the bottom. At the very bottom of the form, a red message states "Your offer was created successfully."

Agency profit: 700 lv.

Peshovi
live here now
MOVEOUT

Rent: 650
Type: single room apartment
Commission: 10

Rent: 1500
Type: Maisonette
Commission: 25

Reg offer

Rent price...
Apartment type...
Commission rate...
REG OFFER

Find offer

Family budget...
Apartment type...
Family name...
FIND OFFER

Your offer was created successfully.

MoveOut Result:

In this case if we click on the **PESHEVI's MoveOut button**, the whole apartment **must be removed**. And you should print the following message:

'They had found cockroaches in {familyName}'s apartment'

We removed successfully the whole PESHEVI's apartment because of the cockroaches..

MoveOut Example Result code structure:

```

<body onload="realEstateAgency()">
  <section>
    <div id="roof">
      <h1>Agency profit: 700 lv.</h1>
    </div>
    <div id="bulldine">
      <div class="apartment">
        <p>Rent: 650</p>
        <p>Type: single room apartment</p>
        <p>Commission: 10</p>
      </div>
      <div class="apartment">
        <p>Rent: 1500</p>
        <p>Type: Maisonette</p>
        <p>Commission: 25</p>
      </div>
    </div>
    <div id="offerManager">
      <div id="regOffer">
        <h2>Reg offer</h2>
        <input type="text" name="apartmentRent" placeholder="Rent price...">
        <input type="text" name="apartmentType" placeholder="Apartment type...">
        <input type="text" name="agencyCommission" placeholder="Commission rate...">
        <button name="regOffer">Reg offer</button> <event>
      </div>
      <div id="findOffer">
        <h2>Find offer</h2>
        <input type="text" name="familyBudget" placeholder="Family budget...">
        <input type="text" name="familyApartmentType" placeholder="Apartment type...">
        <input type="text" name="familyName" placeholder="Family name...">
        <button name="findOffer">Find offer</button> <event>
      </div>
      <div id="notifications">
        <p id="message">They had found cockroaches in Peshovi's apartment</p>
      </div>
    </div>
  </section>
</body>

```

GOOD LUCK... C(: