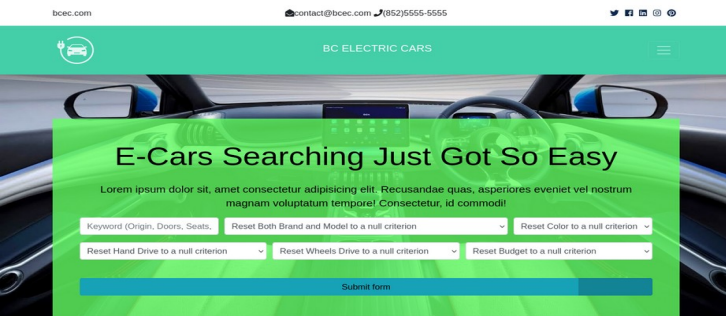


BC Electric Cars

Summary: Building upon design of given bcre.com, bcec.com for web of e-cars improved searching, enhanced listing, enlightened navbar menu, incorporated a websitemap, and included some more inform pages. Project Creator: Frank, Mok Wai Tak Student 21 of HKCT Django Course the Fifth Class 17-Oct-2024



Volvo
EX30

Origin: Sweden Color: Yellow
Doors: 4 Seats: 4
Hand Drive: 4 Wheels Drive: 4
Mileage: 70000.0 Range: 700.0

E-Car Broker: Jenny
3333-3333
jenny@bcec.com

[More Info](#)

Listed Since: 1 day, 18 hours



Volkswagen
ID.7

Origin: Germany Color: Blue
Doors: 4 Seats: 5
Hand Drive: 4 Wheels Drive: 5
Mileage: 70000.0 Range: 700.0

E-Car Broker: Mark
7777-7777
mark@bcec.com

[More Info](#)

Listed Since: 1 day, 19 hours



Tesla
Model Y

Origin: USA Color: Blue
Doors: 4 Seats: 5
Hand Drive: 2 Wheels Drive: 2
Mileage: 80000.0 Range: 800.0

E-Car Broker: Kyle
4444-4444
kyle@bcec.com

[More Info](#)

Listed Since: 1 day, 19 hours

3 Latest E-Cars as shown

Insurance & Consult

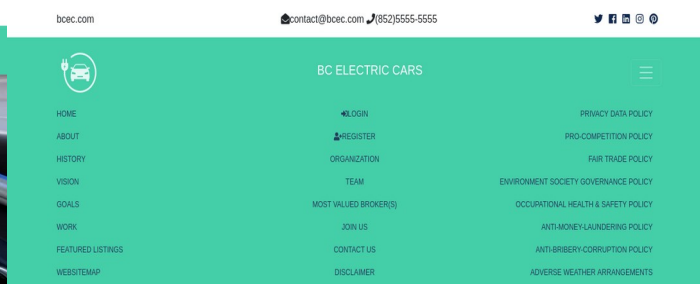
Lorem ipsum dolor sit amet consectetur adipiscing elit. Recusandae quas, asperiores eveniet vel nostrum magnam voluptatum tempore! Consectetur, id commodi!

Maintenance & Repair

Lorem ipsum dolor sit amet consectetur adipiscing elit. Recusandae quas, asperiores eveniet vel nostrum magnam voluptatum tempore! Consectetur, id commodi!

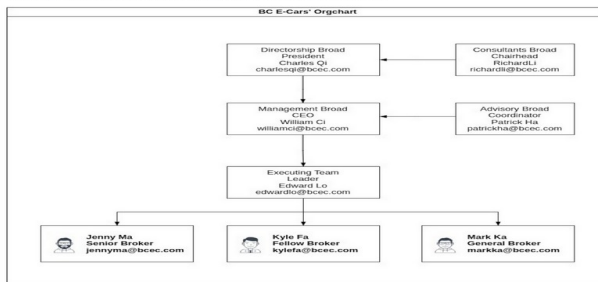
Renting & Selling

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O-chart For The Company

Lorem ipsum dolor sit amet consectetur adipiscing elit. Consequatur, maxime!



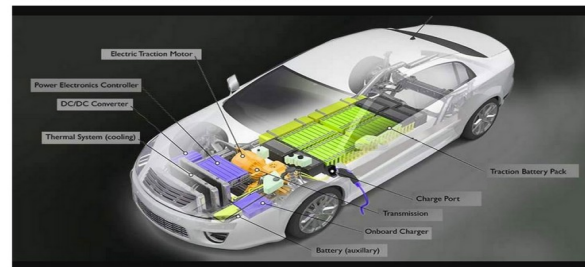
Lorem ipsum dolor sit amet consectetur adipiscing elit. Perspiciatis esse officia repudiandae ad saepe ex, amet neque quod accusamus rem quia magnam magni dorum facilis ullam minima perferendis? Exercitationem at quaeat commodi id libero eveniet harum perferendis laborum molestias quia. Lorem ipsum dolor sit amet consectetur adipiscing elit. Perspiciatis esse officia repudiandae ad saepe ex, amet neque quod accusamus rem quia magnam magni dorum facilis ullam minima perferendis? Exercitationem at quaeat commodi id libero eveniet harum perferendis laborum molestias quia. Lorem ipsum dolor sit amet consectetur adipiscing elit. Perspiciatis esse officia repudiandae ad saepe ex, amet neque quod accusamus rem quia magnam magni dorum facilis ullam minima perferendis? Exercitationem at quaeat commodi id libero eveniet harum perferendis laborum molestias quia.



Home / About Company

Our Company Serves of Seeking Perfect Drive(s) for Families

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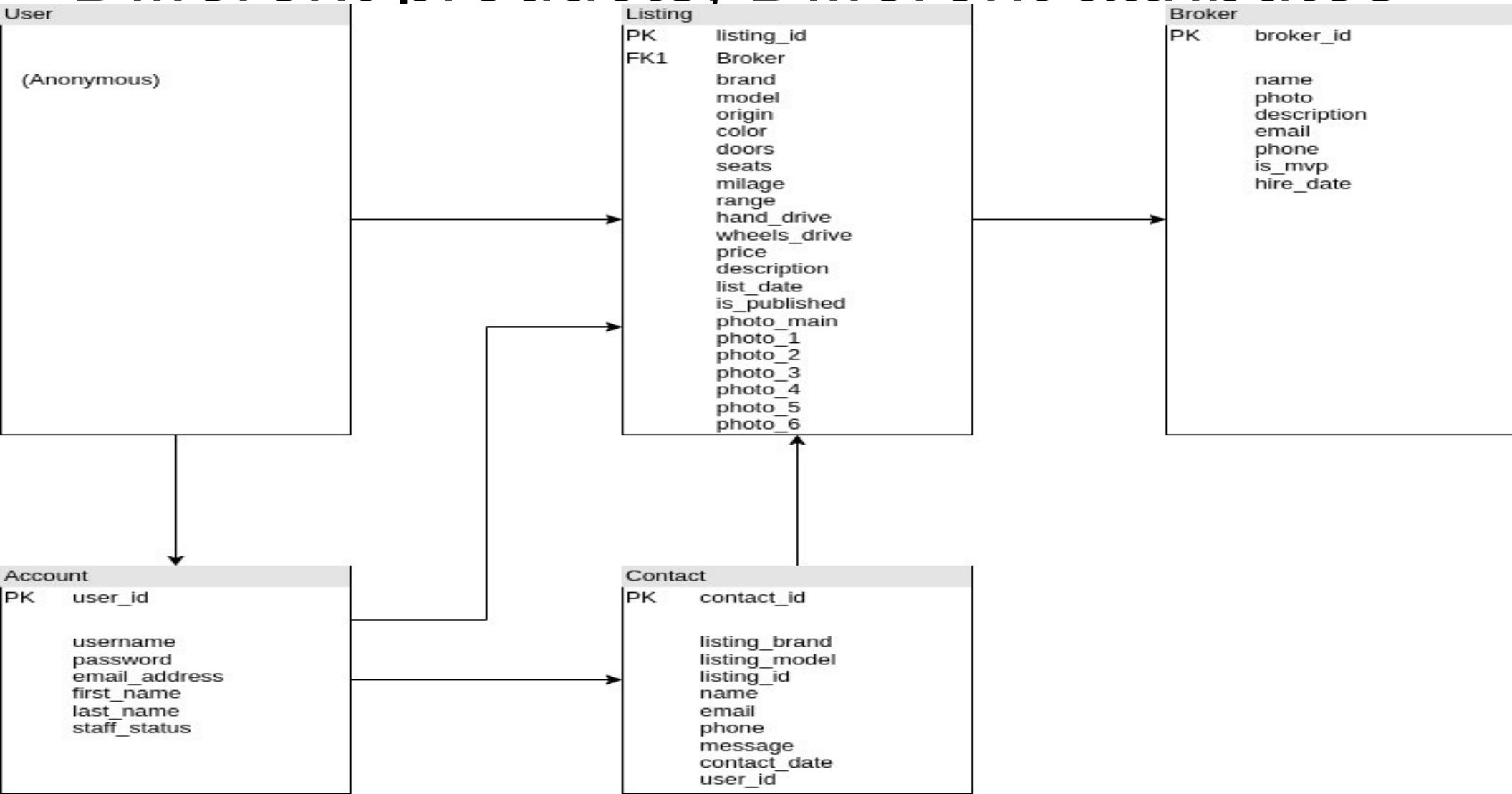
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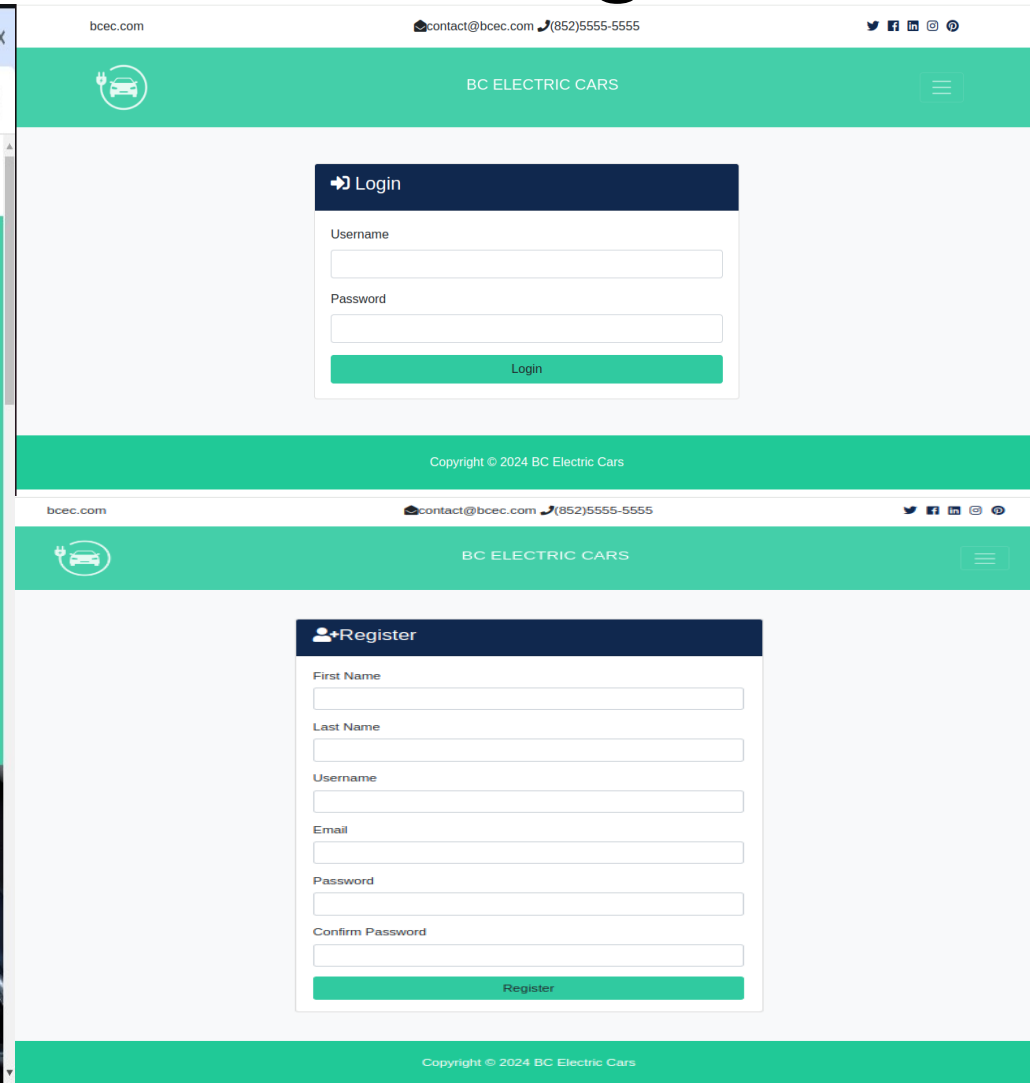
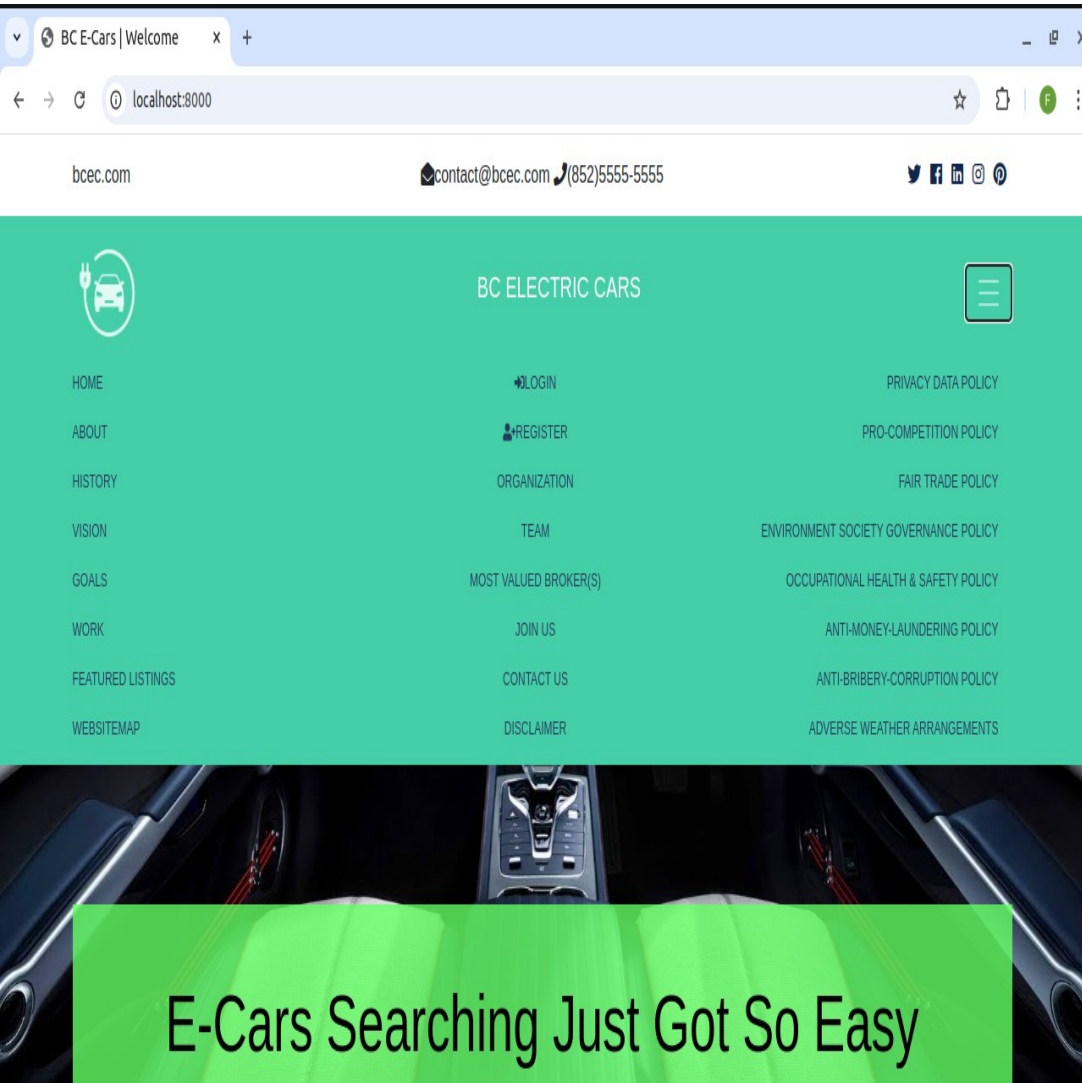
Analysis on bcre.com

- Generic on products of very high price, very low volume mostly of uniqueness / singularity
- Instances for products like jewelry, artefacts, artworks, paintings, real estates, vehicles, plant and instrumentation
- Transactions via top banks, good law firms offline c/w financial, insurantal and legal arrangements
- A promotionally informative system online

Different products, Different attributes



Enriched NavBar-Left/Center/Right Cols



Newly WebSiteMap: logged-in/out differ



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[Vision](#)
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Enabled Reset Some Search Fields



BC E-Cars | Welcome


localhost:8000

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BC ELECTRIC CARS



E-Cars Searching Just Got So Easy

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Keyword (Origin, Doors, Seats,

Reset Both Brand and Model to a null criterion

Reset Color to a null criterion

Reset Hand Drive to a null criterion

Reset Wheels Drive to a null criterion

Reset Budget to a null criterion

Submit form

UX Design – Realisticity in Search

Some improvements on bcre website can be relied upon UX Design on the search boxes.

UX can be increased by offer of more realisticity senses to users in the options' choices.

Two things can be done on the search boxes:

1. combinations of search choices
2. real search choices not hardcoded

Let see the bcec website search box first: *P.T.O.*

search boxes and search fields

bcec.com

Reset Both Brand and Model to a null criterion

BMW i4

BMW i5

BMW i7

Audi e-tron GT

Dacia Spring

Fiat 500

Ford Mustang Mach-E GT

Hyundai Ioniq 5 N

Hyundai Ioniq 6

Hyundai Kona Electric

Jeep Avenger

Kia EV6

Kia EV9

Lotus Electre

Maserati GranTurismo Folgore

Mercedes-Benz EQA

E-Cars

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So Easy

ores eveniet vel nostrum

Keyword (Origin, Doors, Seats, ...)

Reset Both Brand and Model to a null criterion

Reset Color to a null criterion

Reset Hand Drive to a null criterion

Reset Wheels Drive to a null criterion

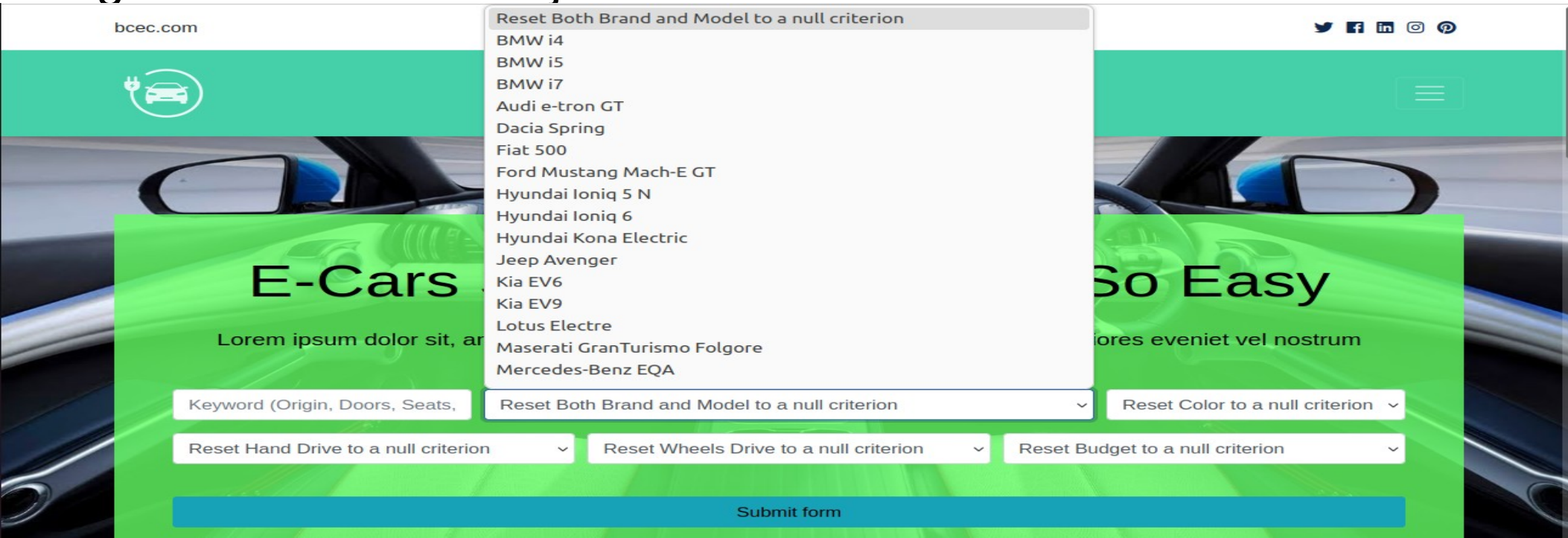
Reset Budget to a null criterion

Submit form

```
5 class Listing(models.Model):
6     broker = models.ForeignKey(Broker, on_delete=models.DO_NOTHING)
7     brand = models.CharField(max_length=50)
8     model = models.CharField(max_length=100)
9     origin = models.CharField(max_length=50)
10    color = models.CharField(max_length=50)
11    doors = models.IntegerField()
12    seats = models.IntegerField()
13    milage = models.DecimalField(max_digits=6, decimal_places=1)
14    range = models.DecimalField(max_digits=4, decimal_places=1)
15    hand_drive = models.CharField(max_length=50)
16    wheels_drive = models.CharField(max_length=50)
17    price = models.IntegerField()
18    description = models.TextField(blank=True)
19    list_date = models.DateTimeField(auto_now_add=True)
20    is_published = models.BooleanField(default=True)
21    photo_main = models.ImageField(upload_to='photos/%Y/%m/%d/')
22    photo_1 = models.ImageField(upload_to='photos/%Y/%m/%d/', blank=True)
23    photo_2 = models.ImageField(upload_to='photos/%Y/%m/%d/', blank=True)
24    photo_3 = models.ImageField(upload_to='photos/%Y/%m/%d/', blank=True)
25    photo_4 = models.ImageField(upload_to='photos/%Y/%m/%d/', blank=True)
26    photo_5 = models.ImageField(upload_to='photos/%Y/%m/%d/', blank=True)
27    photo_6 = models.ImageField(upload_to='photos/%Y/%m/%d/', blank=True)
28
29    def __str__(self):
30        return self.brand + ' . ' + self.model
```


Combinations of Search Choices / Combined Fields Searches

Some relatively major search choices in this case such as brand field and model field be combined to restrict from users' unrealistic nonexistent combinations e.g. M.Benz i5 to exclude possible confusions in selecting options to keep up their own rigorous sense of majoriness.



The screenshot shows a web application for searching electric cars. The page has a teal header with the URL 'bcec.com' and a car icon. The main content area has a green background with the text 'E-Cars' and 'So Easy'. Below this is a search form with several dropdown menus. A dropdown menu is open, showing a list of car models. The list includes: BMW i4, BMW i5, BMW i7, Audi e-tron GT, Dacia Spring, Fiat 500, Ford Mustang Mach-E GT, Hyundai Ioniq 5 N, Hyundai Ioniq 6, Hyundai Kona Electric, Jeep Avenger, Kia EV6, Kia EV9, Lotus Electre, Maserati GranTurismo Folgore, and Mercedes-Benz EQA. The form also includes a 'Keyword (Origin, Doors, Seats)' field, a 'Reset Both Brand and Model to a null criterion' button, a 'Reset Color to a null criterion' button, a 'Reset Hand Drive to a null criterion' button, a 'Reset Wheels Drive to a null criterion' button, a 'Reset Budget to a null criterion' button, and a 'Submit form' button.

bcec.com

Reset Both Brand and Model to a null criterion

- BMW i4
- BMW i5
- BMW i7
- Audi e-tron GT
- Dacia Spring
- Fiat 500
- Ford Mustang Mach-E GT
- Hyundai Ioniq 5 N
- Hyundai Ioniq 6
- Hyundai Kona Electric
- Jeep Avenger
- Kia EV6
- Kia EV9
- Lotus Electre
- Maserati GranTurismo Folgore
- Mercedes-Benz EQA

Keyword (Origin, Doors, Seats)

Reset Both Brand and Model to a null criterion

Reset Color to a null criterion

Reset Hand Drive to a null criterion

Reset Wheels Drive to a null criterion

Reset Budget to a null criterion

Submit form

No Combinations of Search Choices / Individualized Field Searches

Other relatively minor search choices in this case such as color field and budget field be individualized as of users' preferential freedom allowing for negative unsuccessful combinations e.g. below a budget not a color offered retaining users' joy in course of explorations on searching for products, the e-cars.

BC ELECTRIC CARS

E-Cars Searching Just G

Lorem ipsum dolor sit, amet consectetur adipisicing elit. Recusandae quia
magnam voluptatum tempore! Consectetur, id c

Keyword (Origin, Doors, Seats, ...)

Reset Both Brand and Model to a null criterion

Reset Hand Drive to a null criterion

Reset Wheels Drive to a null criterion

Reset Budget to a null criterion

- Reset Budget to a null criterion
- HK\$200,000
- HK\$400,000
- HK\$600,000
- HK\$800,000
- HK\$1,000,000
- HK\$1,200,000
- HK\$1,400,000
- HK\$1,600,000
- HK\$1,800,000
- HK\$2,000,000
- HK\$2,200,000

Field Searches' Real Choices

Field searches' real choices can be derived from database's data existent reflecting true options for potential customers, increasing informative values for users in selections of products the e-cars.



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E-Cars Searching Just Got So Easy

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Submit form

Reset Color to a null criterion

Silvery

Black

Yellow

Red

White

Orange

Blue

Grey

How can we achieve?

See my share of python / django coding tips, p.t.o.

to share django / python coding tips: search field color



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E-Cars Searching Just Got So Easy

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Keyword (Origin, Doors, Seats, Reset Both Brand and Model to a null criterion

Reset Hand Drive to a null criterion Reset Buc

- Reset Color to a null criterion
- Red
- Yellow
- Orange
- Grey
- Silvery
- White
- Blue
- Black

listings > choices.py > ...

```
3 listings = Listing.objects.all().filter(is_published=True)
7 colors_set = {listing.color for listing in listings}
8 color_choices = {'Reset Color to a null criterion': ''} | {color: color for color in colors_set}
```

templates > pages > index.html

```
40 <div class="col-md-3 mb-3">
41   <label class="sr-only" for="color">Colour</label>
42   <select name="color" class="form-control" id="color">
43     {% for key, value in color_choices.items %}
44     <option value="{{value}}">{{key}}</option>
45     {% endfor %}
46   </select>
47 </div>
```

1: set of colors from db 2:dictionary 3:add reset null to dict head 4:options, dynamic from db

to share django / python coding tips: search field hand_drive

BC ELECTRIC CARS

E-Cars Searching Just Got So Easy

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Keyword (Origin, Doors, Seats, Reset Both Brand and Model to a null criterion Reset Color to a null criterion

Reset Hand Drive to a null criterion Reset Wheels Drive to a null criterion Reset Budget to a null criterion

Reset Hand Drive to a null criterion
Left-hand-drive
Right-hand-drive

listings > choices.py > ...

```
3 listings = Listing.objects.all().filter(is_published=True)
14 hand_drives_set = {listing.hand_drive for listing in listings}
15 hand_drive_choices = {'Reset Hand Drive to a null criterion': ''} |
16 {hand_drive + '-hand-drive': hand_drive for hand_drive in hand_drives_set}
```

templates > pages > index.html

```
50 <div class="form-row">
51   <div class="col-md-4 mb-3">
52     <label class="sr-only" for="hand_drive">Hand Drive</label>
53     <select name="hand_drive" class="form-control" id="hand_drive">
54       {% for key, value in hand_drive_choices.items %}
55       <option value="{{value}}">{{key}}</option>
56       {% endfor %}
57     </select>
58   </div>
```

1: set of hand_drives from db 2:dictionary 3:add reset null to dict head 4:options, dynamic from db

to share django / python coding tips: search field wheels drive

BC ELECTRIC CARS

E-Cars Searching Just Got So Easy

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Keyword (Origin, Doors, Seats, Reset Both Brand and Model to a null criterion

```
listings > choices.py > ...  
3 listings = Listing.objects.all().filter(is_published=True)  
18 wheels_drives_set = {listing.wheels_drive for listing in listings}  
19 wheels_drive_choices = {'Reset Wheels Drive to a null criterion': ''} |  
20 {wheels_drive + '-wheels-drive': wheels_drive for wheels_drive in wheels_drives_set}
```

```
templates > pages > <> index.html  
59 <div class="col-md-4 mb-3">  
60     <label class="sr-only" for="wheels_drive">Wheels Drive</label>  
61     <select name="wheels_drive" class="form-control" id="wheels_drive">  
62         {% for key, value in wheels_drive_choices.items %}  
63             <option value="{{value}}">{{key}}</option>  
64         {% endfor %}  
65     </select>  
66 </div>
```

1: set of wheels_drives from db 2:dictionary 3:add reset null to dict head 4:options, dynamic from db

to share django / python coding tips: search field budget

BC ELECTRIC CARS

E-Cars Searching Just G

Lorem ipsum dolor sit, amet consectetur adipisicing elit. Recusandae qua magnam voluptatum tempore! Consectetur, id c

Keyword (Origin, Doors, Seats, Reset Both Brand and Model to a null criterion

Reset Hand Drive to a null criterion Reset Wheels Drive to a null criterion Reset Budget to a null criterion

Reset Budget to a null criterion

- HK\$200,000
- HK\$400,000
- HK\$600,000
- HK\$800,000
- HK\$1,000,000
- HK\$1,200,000
- HK\$1,400,000
- HK\$1,600,000
- HK\$1,800,000
- HK\$2,000,000
- HK\$2,200,000

```
listings > choices.py > ...  
3 listings = Listing.objects.all().filter(is_published=True)  
10 max_price = max({listing.price for listing in listings})  
11 grade = 200000  
12 budget_choices = {'Reset Budget to a null criterion': '0'} |  
13 {'HK$'+f'{g:,}': str(g) for g in range(grade, max_price + grade, grade)}
```

```
templates > pages > index.html  
67 <div class="col-md-4 mb-3">  
68     <label class="sr-only" for="budget">Budget</label>  
69     <select name="budget" class="form-control" id="budget">  
70         {% for key, value in budget_choices.items %}  
71             <option value="{{value}}">{{key}}</option>  
72         {% endfor %}  
73     </select>  
74 </div>
```

1: max of set of prices from db 2:grade 3: grades of range() 4: dictionary 3:add reset null to dict head 4:options, dynamic from db

django / python coding tips: combination field brand & model



listings > choices.py > ...

```
3 listings = Listing.objects.all().filter(is_published=True)
5 brand_model_choices = {'Reset Both Brand and Model to a null criterion': ''} |
6 {listing.brand + ' ' + listing.model: listing.brand + '~' + listing.model for listing in listings}
```

templates > pages > index.html

```
32 <div class="col-md-6 mb-3">
33   <label class="sr-only" for="brand_model">Brand           Model</label>
34   <select name="brand_model" class="form-control" id="brand_model">
35     {% for key, value in brand_model_choices.items %}
36     <option value="{{value}}">{{key}}</option>
37     {% endfor %}
38   </select>
39 </div>
```

1:dictionary of brand+' '+model : brand+'~'+model 2:add reset null to dict head 3:options, dynamic from db

django / python coding tips: the search code

listings > views.py > search

```
35 def search(request):
36     queryset_list = Listing.objects.order_by('-list_date').filter(is_published=True)
37     if 'keywords' in request.GET:
38         keywords = request.GET['keywords']
39         if keywords:
40             queryset_list = queryset_list.filter(description__icontains=keywords)
41     if 'brand_model' in request.GET:
42         brand_model = request.GET['brand_model']
43         if brand_model:
44             i = brand_model.index('~')
45             queryset_list = queryset_list.filter(brand__iexact=brand_model[:i]).filter(model__iexact=brand_model[i+1:])
46     if 'color' in request.GET:
47         color = request.GET['color']
48         if color:
49             queryset_list = queryset_list.filter(color__iexact=color)
50     if 'budget' in request.GET:
51         budget = int(request.GET['budget'])
52         if budget:
53             queryset_list = queryset_list.filter(price__lte=budget)
54     if 'hand_drive' in request.GET:
55         hand_drive = request.GET['hand_drive']
56         if hand_drive:
57             queryset_list = queryset_list.filter(hand_drive__iexact=hand_drive)
58     if 'wheels_drive' in request.GET:
59         wheels_drive = request.GET['wheels_drive']
60         if wheels_drive:
61             queryset_list = queryset_list.filter(wheels_drive__iexact=wheels_drive)
```

1. quest for search field key in json
2. read in search field value in json
3. screen out null criterion search passing wholly
4. search non-null criterion
5. pass to repeat till all search fields
6. for brand & model: double searches / filters in succession

django / python coding tips: the websitemap code

templates > pages > < sitemap.html

```
46 <div class="row">
47   <div class="col-md-4">
48     <ul style="list-style-type:none;">
49       <li>
50         | <a href={% url "index" %}>Home</a>
51       </li>
52       <li>
53         | <a href={% url "about" %}>About</a>
54       </li>
55       <li>
56         | <a href={% url "history" %}>History</a>
57       </li>
58       <li>
59         | <a href={% url "vision" %}>Vision</a>
60       </li>
61       <li>
62         | <a href={% url "goals" %}>Goals</a>
63       </li>
64       <li>
65         | <a href={% url "work" %}>Work</a>
66       </li>
67       <li>
68         | <a href={% url "listings" %}>Featured Listings</a>
69       </li>
70       <li>
71         | <a href={% url "sitemap" %}>Websitemap</a>
72       </li>
73     </ul>
74   </div>
75   <div class="col-md-4">
76     <ul style="list-style-type:none;">
77       <li>
78         | <a href={% url "organization" %}>Organization</a>
79       </li>
80       <li>
81         | <a href={% url "team" %}>Team</a>
82       </li>
83       <li>
84         | <a href={% url "mvb" %}>Most Valued Broker(s)</a>
85       </li>
86       <li>
87         | <a href={% url "joinus" %}>Join Us</a>
88       </li>
89       <li>
90         | <a href={% url "contactus" %}>Contact Us</a>
91       </li>
92       <li>
93         | <a href={% url "disclaimer" %}>Disclaimer</a>
94       </li>
95     </ul>
96   </div>
97   <div class="col-md-4">
98     <ul style="list-style-type:none;">
99       <li>
100         | <a href={% url "pdpolicy" %}>Privacy Data Policy</a>
101       </li>
```

```
102   <li>
103     | <a href={% url "pcpolicy" %}>Pro-Competition Policy</a>
104   </li>
105   <li>
106     | <a href={% url "ftpolicy" %}>Fair Trade Policy</a>
107   </li>
108   <li>
109     | <a href={% url "esgpolicy" %}>Environment Society Governance Policy</a>
110   </li>
111   <li>
112     | <a href={% url "ohspolicy" %}>Occupational Health & Safety Policy</a>
113   </li>
114   <li>
115     | <a href={% url "amlpolicy" %}>Anti-Money-Laundering Policy</a>
116   </li>
117   <li>
118     | <a href={% url "abcpolicy" %}>Anti-Bribery-Corruption Policy</a>
119   </li>
120   <li>
121     | <a href={% url "awarrange" %}>Adverse Weather Arrangements</a>
122   </li>
123   </ul>
124 </div>
125 </div>
```

Conclusion

Before conclusion, demo time of bece.com .

Finally, UX is an important niche of software design as ultimate users are human. It much increases the value of use, i.e. usability, of the software.

Thank you for your participation.

Thanksgiving to Wai Lung Sir.

Chance comes, meeting again.