



Carleton Classifieds

A new way to buy and sell at
carleton

by

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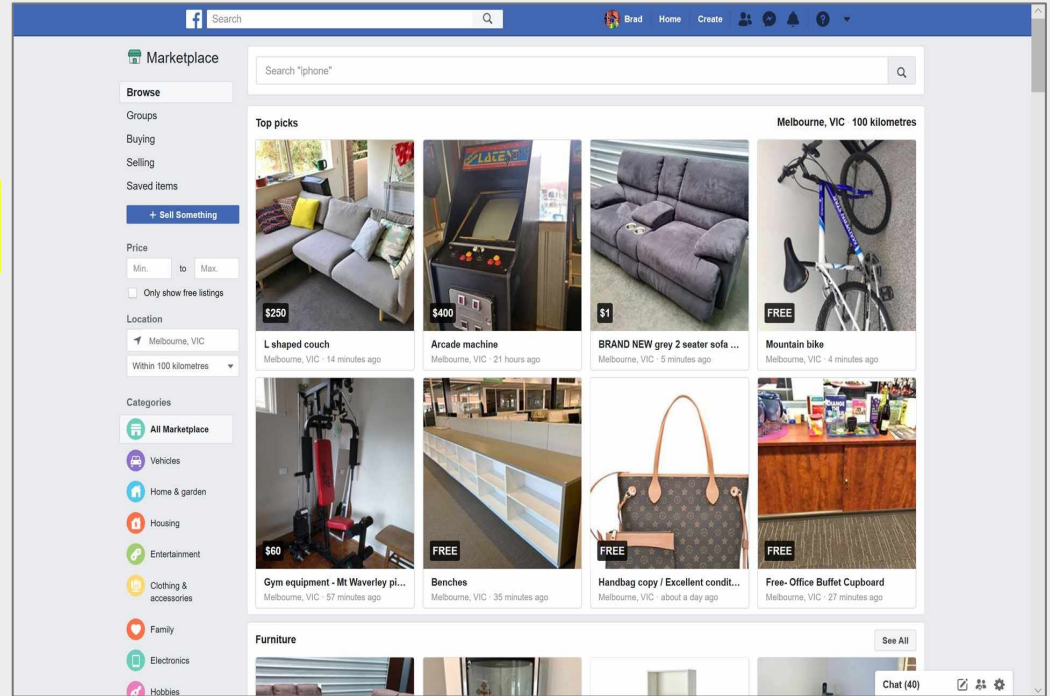
What is Carleton Classifieds?

- Website that allows users to buy/sell/request for:
 - Items
 - Rides
- Examples:
 - “I am looking for a ride to get from Northfield to Minneapolis!”
 - “I would like to sell my used bike”



Idea Behind Carleton Classifieds

- Serve as a replacement to existing ecommerce sites
 - Facebook Marketplace
 - Carlslist
 - etc.




Carleton Classifieds Before:


CC Listings Rides Your Items Create ▾

Search [Logout](#)


Recent Posts

- 


\$4.99
T-Shirt
Olga Suttell

[View Listing](#)
- 


\$15.00
Textbooks
Olga Suttell

[View Listing](#)
- 


\$15.00
Toy Train
Thomasa Novis

[View Listing](#)
- 


\$5.00
Movie Poster
Lori Shreeve

[View Listing](#)
- 


\$2.00
Fuzzy Socks
Josh Oettinger

[View Listing](#)
- 

\$24.00
Jeans!!!
Bertine Bearcroft

[View Listing](#)
- 

\$1000.00
Garden Knome
Bertine Bearcroft

[View Listing](#)
- 

\$8.00
Cleaning Supplies
Thomasa Novis

[View Listing](#)

Our Goals

- Services Option
 - Ex: plant sitting over the weekend
- Mobile Responsiveness
- Payment API for purchasing flow (stretch goal)
 - Venmo or Cashapp
- Overhaul of frontend

Carleton Classifieds After:

Classifieds

- Recently Added
- Items**
- Rides
- Services
- Your Listings
- Liked Listings

+ New Listing

Items

Here are all the latest latest finds. Happy shopping!

\$1400

A black and red mountain bike parked on a grassy hill.

2017 Giant Stance 2 Sma...
USED 12 days ago

\$325

A silver MacBook Pro laptop with a lion image on the screen.

Macbook pro 2013
USED 4 days ago

\$22

A black circular robotic vacuum cleaner.

Roomba
USED 4 days ago

\$75

A dark wood desk with a white metal frame.

IKEA Galant Desks
USED 4 days ago

\$300

A dark wood dresser with multiple drawers.

IKEA Bedroom Furniture...
USED 4 days ago

\$30

A wall-mounted tapestry with a colorful, abstract pattern.

Urban Outfitters Wall Ta...
USED 4 days ago

\$25

A night view of a city skyline with lights.

\$25

\$225

A landscape view of a city with mountains in the background.

\$225

Search Listings ...

+ ...

28" UHD 4k LCD Monitor for PC/Mac/Gaming Consoles

A large monitor displaying a landscape scene.

\$225.00 **0** Carls

LIGHTLY USED Request

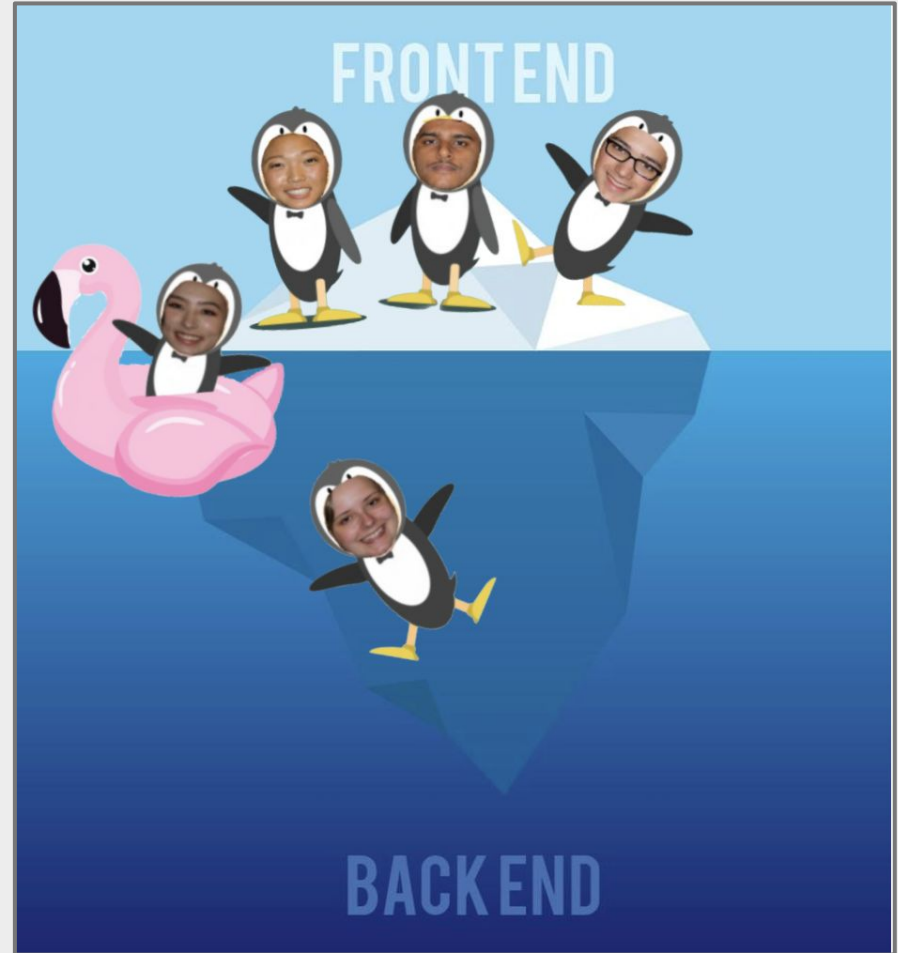
from **Mashnoon Ibtesum**

Got this in August 2020 for \$350 when it was clear I'd be working from home for a while, recently upgraded for something higher end to take advantage of the PS5's performance. (I've been using this with the PS5 since November and have had no complaints, just going for 8k, 120hz—all the bells and whistles.) Some quick specs are included here and a link to the BestBuy page with all the deets is at the bottom. Check out the reviews—this is an all-around great monitor. Let me know if you have any questions. 4K Ultra High Definition 3840 x 2160 resolution LCD HDR10 (High Dynamic Range) 60hz

Contact

Team Division

- Frontend
 - Max, Mash, and Elizabeth
- Backend
 - Ginnie and Mash
- Mockups
 - Mash and Meghan
- User Testing
 - Meghan



Working with an Existing Codebase

- Work through tutorials and documentation
 - Javascript (React), Django, Redux, etc.
- Look through existing codebase
 - Code hierarchy

Last year's research

Incentivizing migration from existing platforms

- **Free and For Sale** and **Carlslist** are already established in the Carleton community
- Necessary to ***incentivize*** users to migrate to our new platform
- Needs **new features** that are not available with the existing tools

Disadvantages of current tools

- No direct payment integration
- No immediate feedback on purchasing
- Queuing for listed items can be complicated
- Lack of listing-specific fields
- Limited search functionality
 - No convention for posting requests
- Lack of functionality for posting requests

The screenshot shows a Facebook Marketplace listing titled "Free & For Sale" by user Lewis Ching. The listing includes a main image of a skateboard and several smaller images of clothing items: khaki pants, a black jacket, and a box. The listing text reads: "Skateboard -5 obo", "Everlane khakis 32x30 - free", "american eagle jeans 32x30 - free", and "Incense - free". The location is listed as "NORTHFIELD, MN". The listing has 2 likes and 9 comments. A comment from Naomi Brim says, "I'd like to be next for the skate board?". The right sidebar shows group settings: "Hidden" (Only members can find this group.) and "Buy and Sell". Below that is a "Recent media" section with a grid of images including a bicycle and various jackets, with a "See All" button. At the bottom is a "Still available on Marketplace" section with two items: a "\$15 Corset bra" and a "\$5 Stuff" item, both marked as "Free & For Sale".

Overlooking categories

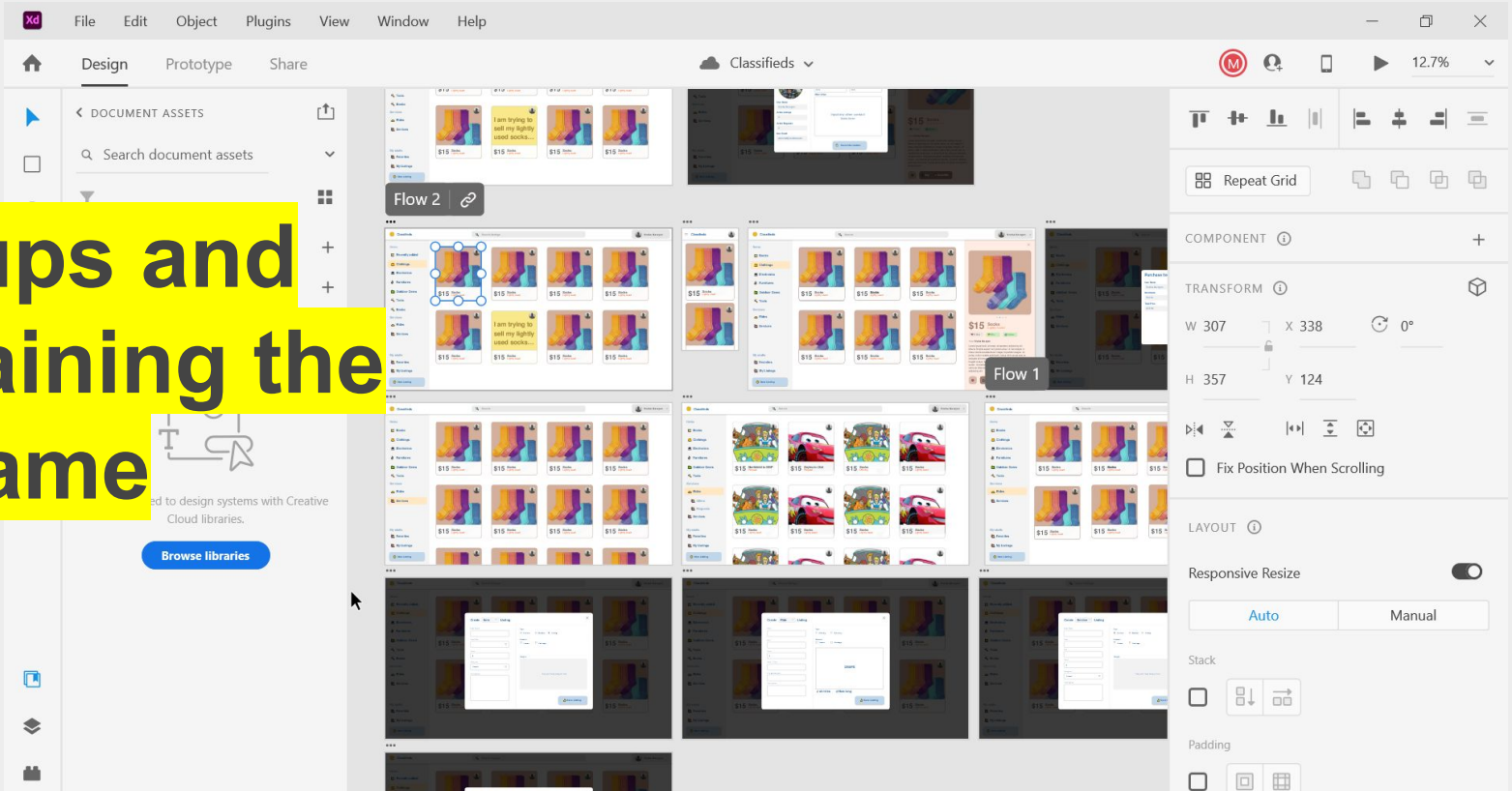
Multiple categories that do not fit into the existing architecture of the site:

- Other
- Questions: General
- Questions: Tech
- Ride **request**
- **Service** request
- Information
- Housing

	A	B	C
71	Senior cat in search of home	8	other
72	Free: filters for pet fountain	6	other
73	looking for recommendations in Faribault	5	other
	Arts and Crafts Writing Desk and Bookcase	4	other
	Honeywell air purifier with spare filter - \$70	2	other
	Waterproof / snow proof iPhone SE case \$10	2	other
77	DVD collection purge (mostly science fiction and horror titles)	2	other
78	circular saw & multi-tool for sale	2	other
79	Honeywell air purifier with spare filter - \$90	2	other
80	ISO electric keyboard	1	other
81	FREE Beef Knuckle for dog	0	other
82	saws are taken	0	other
83	Where to buy glasses?	9	question: general
84	cracked computer screen - help needed	3	question: tech
85	ailing Mac question	2	question: tech
86	ailing Mac question - FOUND	1	question: tech
87	ISO ride to U of St Thomas/Mac-Groveland	3	ride request
88	ISO ride to MSP early 2/11	1	ride request
89	looking for beta testers -- iPhone and Apple Watch	4	service request

What's special about Carleton Classifieds?

- **Distinct listing types** which allow for greater flexibility in what can be posted
 - Listing-specific fields and tags
- Ability to post explicit **requests** that are easily distinguishable from offers
- **Seamless purchasing workflow**



Mockups and maintaining the wireframe

ed to design systems with Creative Cloud libraries.
[Browse libraries](#)

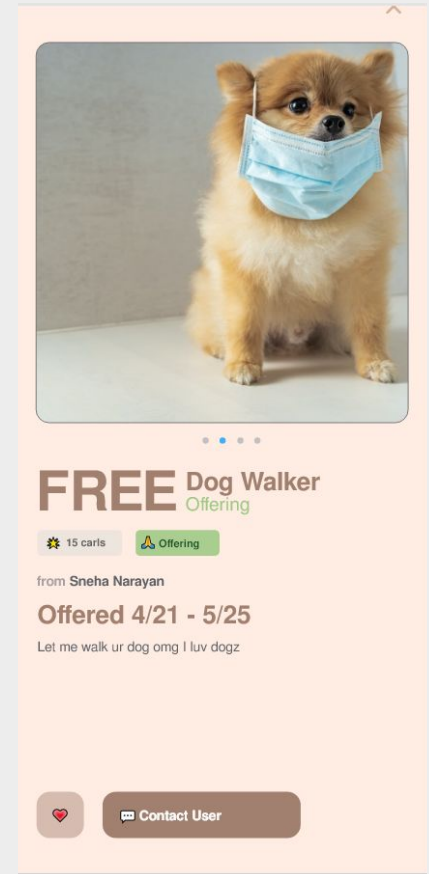
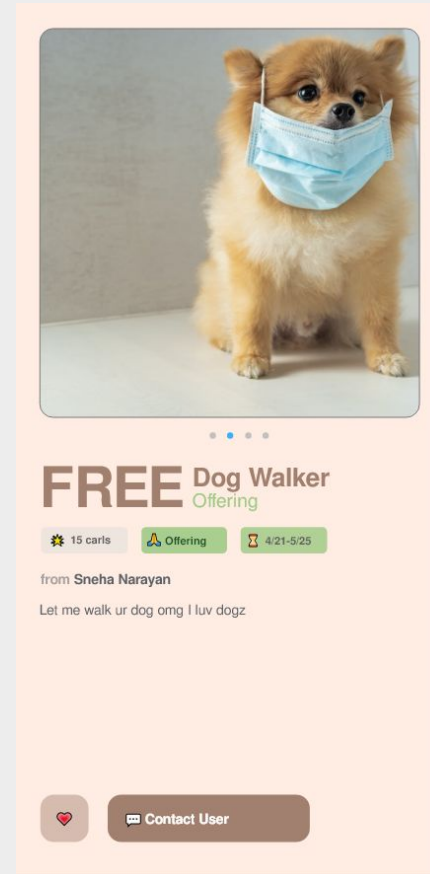
Setting up user testing

Performed using remote screen control over Zoom.

Mockups were *non-functional*, and therefore user tests need to be **overseen**

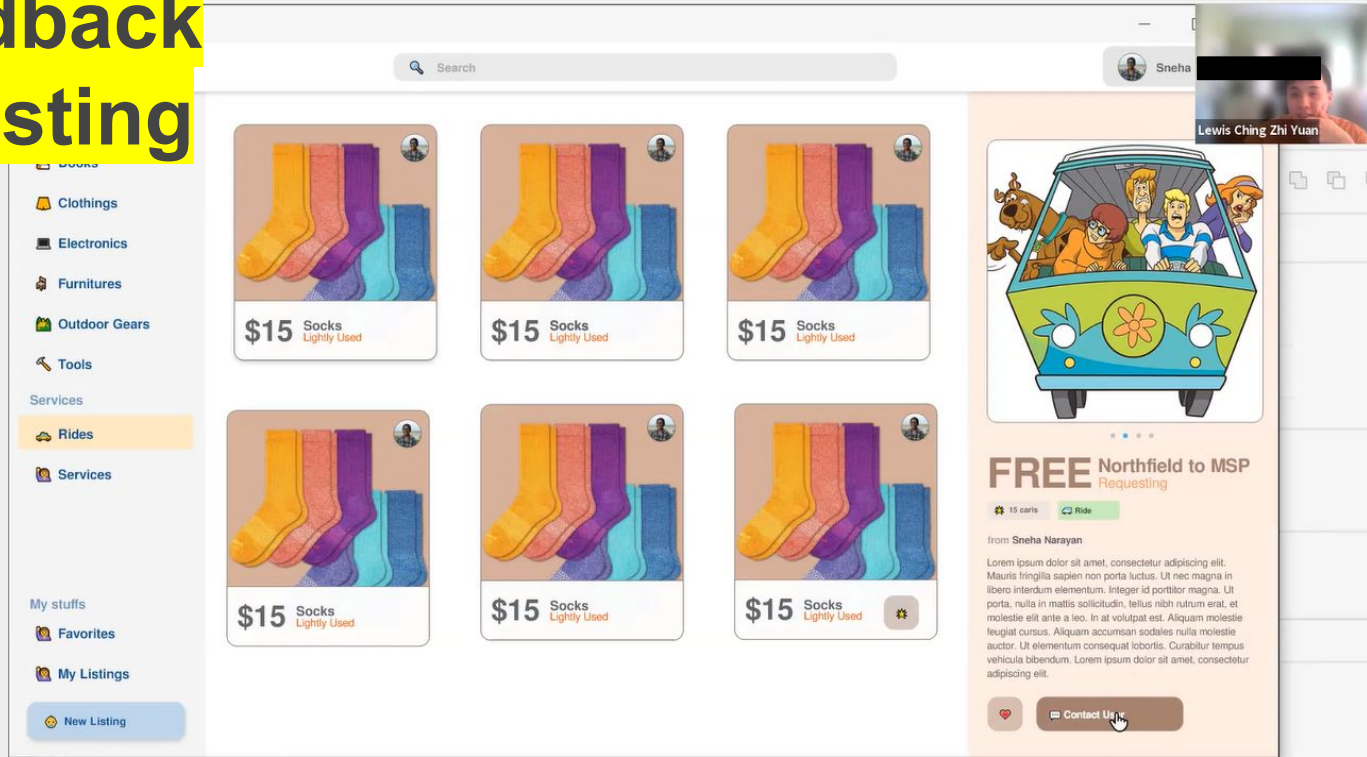
Functionality was added to mockups based on **user testing scripts**

Rolling system of user tests, so that feedback could be incorporated



Desired feedback from user testing

- How are services used?
 - New fields (duration) and tags
- Are requests clear?
 - Significant user feature to differentiate from existing tools



- *Is the purchasing workflow understandable?*

Integrating user feedback: The purchasing workflow

- Goal to *integrate payment* within the application
- Utilized **third party apps**
- Multi-step process
- Requires a populated **user profile**
- Does *not* allow offers, questions, etc.

Purchase Item ✕




User Name	Sneha Narayan
Item Name	Socks
Total Price	\$15.00

Contact Method

User Email


snehan@carleton.edu

User Links

Other Links

This user has not listed any other links.

 [Purchase Listing](#)

Compromise: Direct email integration

- Requires **no user setup**
- Pre-populated subject and body makes emails easily recognizable
- **Timestamps** for queuing
- **Complicates moderating**
- Requires sellers to **mark as sold**

Classifieds: "Rubik's Cube"

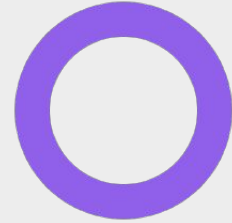
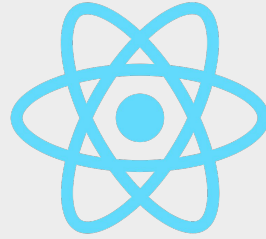
To goldbergm@carleton.edu X

Classifieds: "Rubik's Cube"

I'm interested in your listing on Carleton Classifieds!

The frontend

Front- End Tech Stack





React:

Javascript library for building user interface. Maintained by facebook.



Grommet:

Design system and react framework for building modular and responsive frontends



Redux:

Javascript library for managing application states



Items




\$15.00 

Textbooks
Olga Suttell

[View Listing](#)



Rides

Minette Sisselot 
Wed May 6, 1:01 am

30329 Buena Vista Parkway 7 miles
to
88827 Maywood Parkway 2 riders

[View Ride](#)




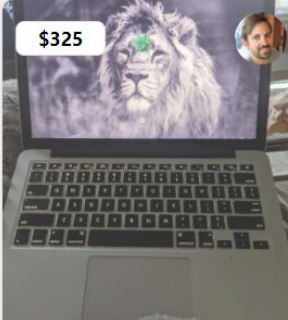
Services

N/A


Old

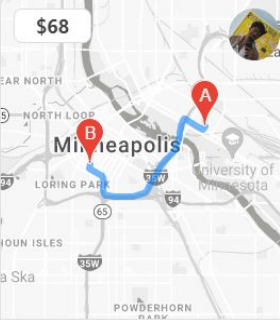
New

\$325 



Macbook pro 2013
USED 4 days ago

\$68 



Kbp Korean Bistro to Ci...
Request 11 days ago

\$24 

Hi! I am looking for a walker for my dog Lilly.
\$24/hour

Dog Walker
Request 5 days ago

Carleton Classifieds

classiefieds.mash.studio

Create **Item** Listing

Item Name

Condition

Select

Price

\$

Category

Select

Description

Tags

Negotiable

Delivery Pickup Mailbox

Image

Drop files here or [browse](#)

Save Listing

Carleton Classifieds

classiefieds.mash.studio

New York to California
Request 7 days ago

\$24

Hi! I am looking for a walker for my dog Lilly.
\$24/hour

Dog Walker
Request 7 days ago

\$225 New Listing

Carleton Classifieds

classiefieds.mash.studio

IKEA Bedroom Furniture - Hemnes Collection

IKEA B
USED 6

\$15 **\$300.00** 0 Carls **USED** Request

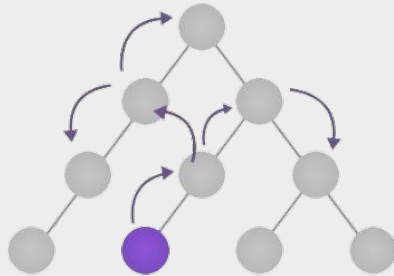
from Mashnoon Ibtesum

Great condition. Super spacious dressers, deep drawers. Pair of nightstands and two dressers. Color: Black Brown Large dresser: 64x18 Medium dresser: 42x19 Nightstands:

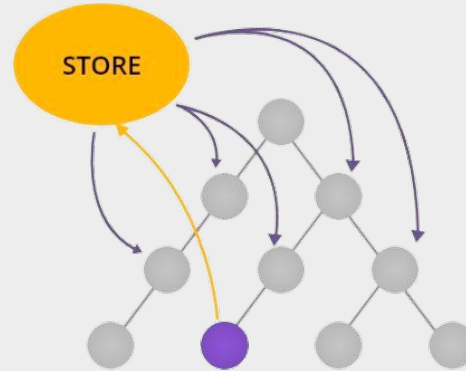
[Edit Listing](#) [Mark as sold](#)

Delete Listing

Without
Redux



With
Redux



● Component initiating change

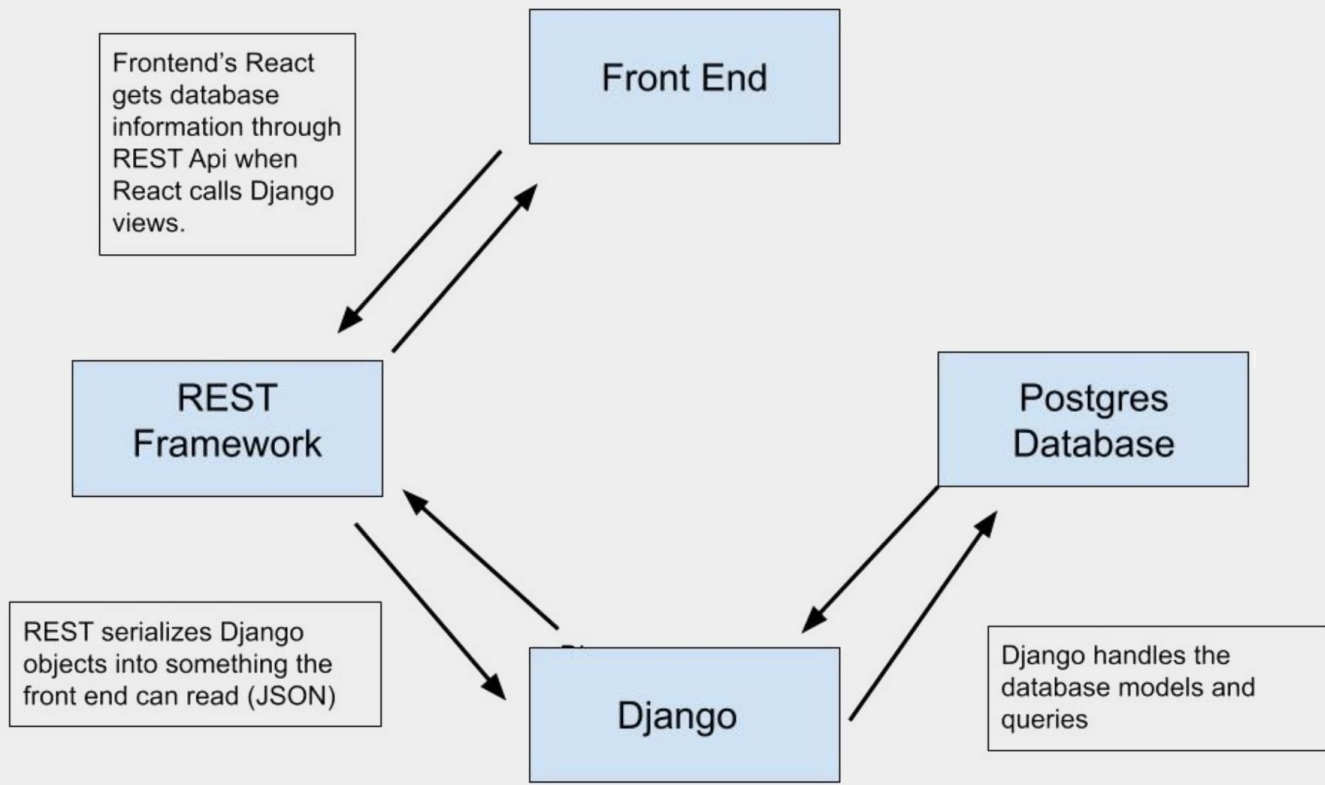
The backend

The Basics

- **Django** framework, uses **Python**
- **PostgreSQL** database on classifieds.mathcs.carleton.edu
- **REST** framework

Overview of Django

- Information stored in database using **models**
- **Urls** call **views**
- Views act like functions
 - Examples: make objects, update objects, filter by criteria



Adding Services

- Step 1: New model
 - Fields tweaked with feedback
- Step 2: New views
 - Create, delete, edit, like/unlike, etc
- Step 3: Serializer
- Step 4: Connect views to urls.



```
class ServiceListing(models.Model):
    name = models.CharField(max_length=150)
    created = models.DateTimeField(auto_now_add=True)
    description = models.TextField(default="Not specified")
    price = models.DecimalField(max_digits=9, decimal_places=2, default=0.0)
```



```
@api_view(['POST'])
def delete_servicelisting(request, pk):
    """ Deletes the service posting associated with the given primary key from the database. """
    post = ServiceListing.objects.get(pk=pk)
    if post.user == request.user:
        post.delete()
        return Response(status=status.HTTP_204_NO_CONTENT)
    else:
        return Response(status=status.HTTP_403_FORBIDDEN)
```

Items, Rides + Tweaking Services

Ex: New Item Fields

```
CONDITION_CHOICES = [(NEW, "New"), (LIGHT, "Lightly-Used"), (USED, "Used")]  
condition = models.CharField(max_length=12, choices=CONDITION_CHOICES, default="N")
```

Ex: Updates to Services

```
start_date = models.DateTimeField(default=timezone.now)  
end_date = models.DateTimeField(default=timezone.now)  
offered = models.BooleanField(default=False) # is the user offering the service?  
is_request = models.BooleanField(default=False)  
negotiable = models.BooleanField(default=False) # is the price negotiable?
```

Unit Testing

- Run through `manage.py`
- Hadn't really been done by last year's team
- Good way to learn Django + check for broken code
- **APIRequestFactory** can create fake frontend requests

```
def test_create_view(self):
    user = User.objects.get(given_name="Ginnie")
    request = self.factory.post('serviceposting/create/',
                               {'created': timezone.now(), 'name': "Dogsitting",
                                'description': 'Babysit my dog', 'start_date': timezone.now().replace(tzinfo=timezone.utc),
                                'end_date': timezone.now().replace(tzinfo=timezone.utc),
                                'price': 10, 'offered': True, 'is_request': False, 'negotiable': True})
    request.user = user # You need to give the request a user manually using the request factory
    response = create_servicelisting(request)
    self.assertEqual(response.status_code, 201)
```

The future of Carleton Classifieds

Next Steps

- Frontend changes
 - Implementing editing in the front-end
 - More useful 'mark as sold'
- Big Goals
 - Vemno/payment app integration
 - More user tests on updated site
 - Large scale deployment by ITS?

Thanks for listening!