Homework 2: MongoDB

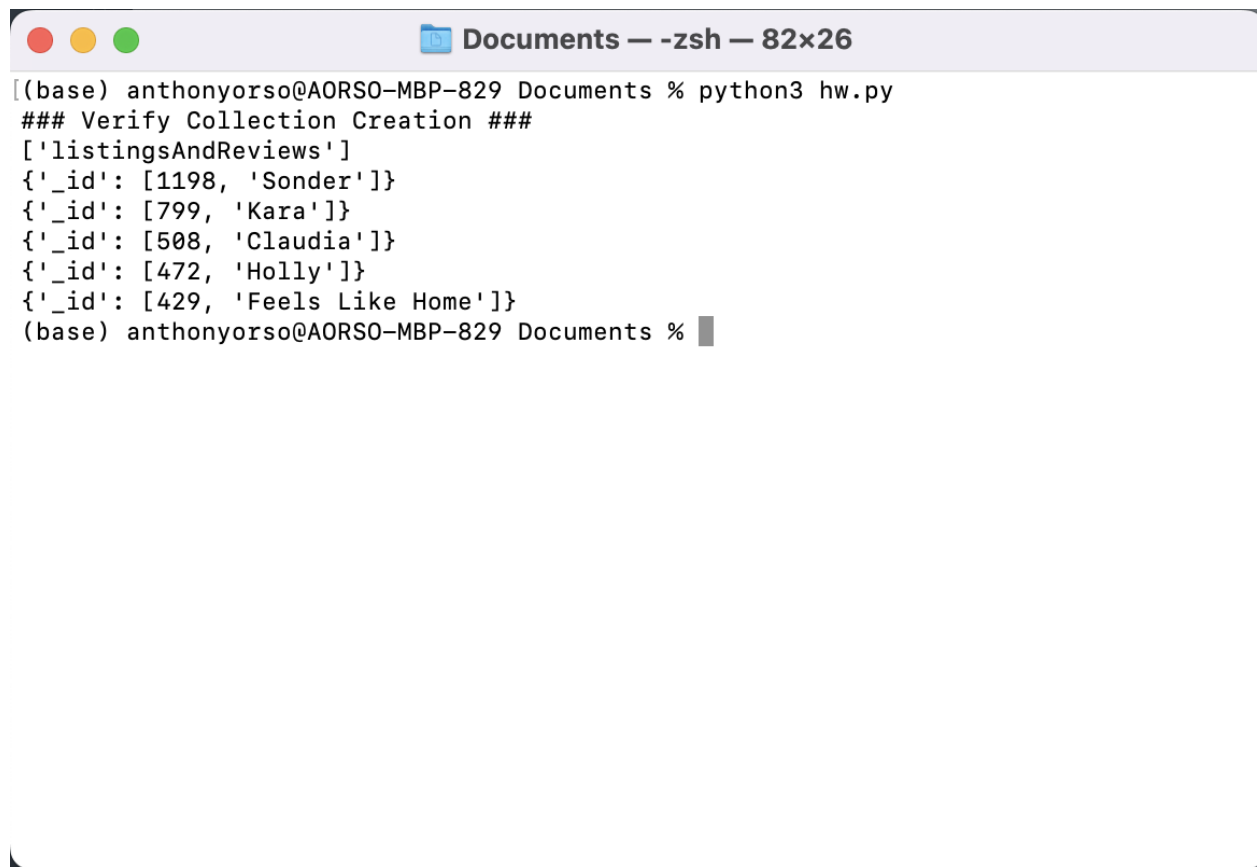Anthony Orso and Delaney Sauer

Contributions:

Anthony: Q1-Q3, compiled work into a file
Delaney: Q4-Q6, edited file

Q1.

```
top5 = posts.aggregate([
    {"$unwind":"$host"},
    {"$group": {
    "_id": ["$host.host_listings_count","$host.host_name"]}},{"$sort": {"_id": -1}},{"$limit":5}])

for entry in top5:
        pprint.pprint(entry)
```



```
[(base) anthonyorso@AORSO-MBP-829 Documents % python3 hw.py
### Verify Collection Creation ###
['listingsAndReviews']
{'_id': [1198, 'Sonder']}
{'_id': [799, 'Kara']}
{'_id': [508, 'Claudia']}
{'_id': [472, 'Holly']}
{'_id': [429, 'Feels Like Home']}
(base) anthonyorso@AORSO-MBP-829 Documents %
```

Q1. Alternative Method

hosting = posts.find({},{"host.host_name": 1,"host.host_listings_count": 1}).sort("host.host_listings_count",-1)

```
ls =[]
i=1
for a in hosting:
        entry = a["host"]["host_name"],a["host"]["host_listings_count"]
        if i > 5:
                break
        if entry not in ls:
                ls.append(entry)
                i+=1
        else:
                continue

for l in ls:
        print(l)
```

Q2.

wifi_min = posts.find({"amenities": {"$all": ["Cable TV", "Iron", "Wifi"]}},
      {"_id": 1, "name": 1, "property_type": 1, "minimum_nights": 1}).sort("minimum_nights",
      -1).limit(10)

for wi_min in wifi_min:
      pprint.pprint(wi_min)

```
(base) anthonyorso@AORSO-MBP-829 Documents % python3 hw.py
{'_id': '9907103',
 'minimum_nights': '90',
 'name': 'Brand New Luxury Downtown Studio',
 'property_type': 'Loft'}
{'_id': '4404740',
 'minimum_nights': '90',
 'name': 'Ko Olina: March Special - For You & Your Family!!',
 'property_type': 'Villa'}
{'_id': '573924',
 'minimum_nights': '90',
 'name': 'CHIC apt near metro & AtwaterMarket',
 'property_type': 'Apartment'}
{'_id': '2629234',
 'minimum_nights': '90',
 'name': 'Beautiful 1/1/1 in Waikiki!',
 'property_type': 'Condominium'}
{'_id': '22336644',
 'minimum_nights': '90',
 'name': 'Suitable place for ERASMUS students (Mecidiyeköy)',
 'property_type': 'Apartment'}
{'_id': '19750905',
 'minimum_nights': '8',
 'name': 'Executive studio in the heart of Manhattan',
 'property_type': 'Apartment'}
{'_id': '11207193',
 'minimum_nights': '7',
 'name': '302 Kanai A Nalu Ocean front/view',
 'property_type': 'Condominium'}
{'_id': '13559998',
 'minimum_nights': '7',
 'name': 'Rio Olympic VIP Accommodations',
 'property_type': 'Apartment'}
{'_id': '1090153',
 'minimum_nights': '7',
 'name': 'Aquilla House - Ocean Views Newport',
 'property_type': 'House'}
{'_id': '14013822',
 'minimum_nights': '7',
 'name': 'Maui Beach House Chic Style with Tropical Views',
 'property_type': 'Condominium'}
(base) anthonyorso@AORSO-MBP-829 Documents % ▊
```

Q3.

```
wifi_max = posts.find({},
        {"_id": 1, "name": 1, "property_type": 1, "maximum_nights": 1}).sort("maximum_nights",
        -1).limit(1)

for wi_max in wifi_max:
        pprint.pprint(wi_max)
```

```
(base) anthonyorso@AORSO-MBP-829 Documents % python3 hw.py
{'_id': '15904149',
 'maximum_nights': '999',
 'name': 'Unique Design, Awesome view , Prime Location',
 'property_type': 'Apartment'}
(base) anthonyorso@AORSO-MBP-829 Documents % ▌
```

Q4.

accom = posts.find({"$and":[{"accommodates":{"$gte":5,"$lte":8}},{"beds":{"$gt": 4}}]},
    {"_id": 1, "name": 1, "property_type": 1, "accommodates":1, "beds":
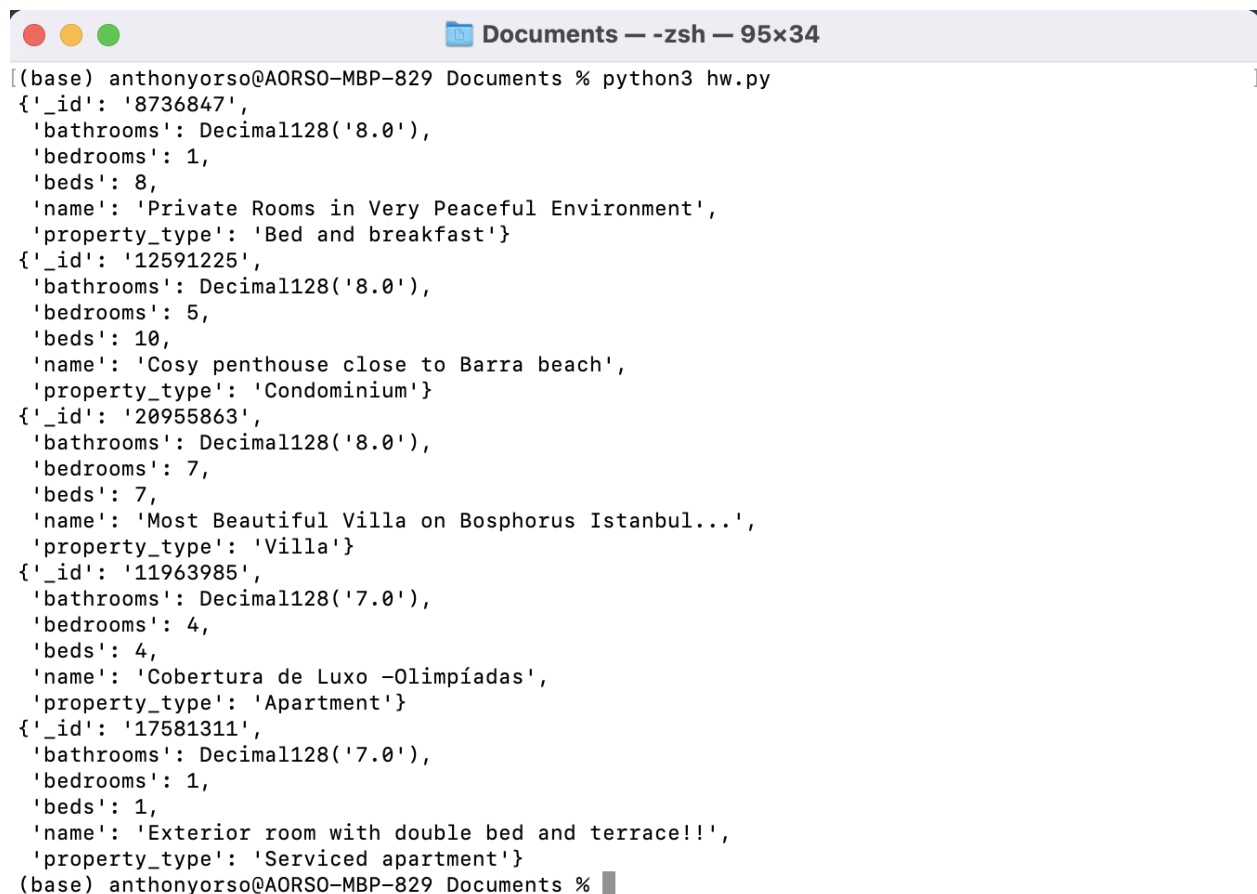   1,"bedrooms":1}).sort("accommodates",-1).limit(5)

for a in accom:
    pprint.pprint(a)

```
[(base) anthonyorso@AORSO-MBP-829 Documents % python3 hw.py
{'_id': '1036027',
 'accommodates': 8,
 'bedrooms': 4,
 'beds': 8,
 'name': 'BBC OPORTO 4X2',
 'property_type': 'Apartment'}
{'_id': '10006546',
 'accommodates': 8,
 'bedrooms': 3,
 'beds': 5,
 'name': 'Ribeira Charming Duplex',
 'property_type': 'House'}
{'_id': '10581101',
 'accommodates': 8,
 'bedrooms': 4,
 'beds': 6,
 'name': 'Grand apartment Sagrada Familia',
 'property_type': 'Apartment'}
{'_id': '10423504',
 'accommodates': 8,
 'bedrooms': 3,
 'beds': 6,
 'name': 'Bondi Beach Dreaming 3-Bed House',
 'property_type': 'House'}
{'_id': '10051164',
 'accommodates': 8,
 'bedrooms': 1,
 'beds': 8,
 'name': "Catete's Colonial Big Hause Room B",
 'property_type': 'House'}
(base) anthonyorso@AORSO-MBP-829 Documents %
```

Q5.

```
for post in posts.find( { "$expr":{"$gt":["$bathrooms","$bedrooms"]}},
                                        {"_id":1, "name":1, "property_type":1,
        "bathrooms": 1, "bedrooms":1, "beds":1}).sort("bathrooms", -1).limit(5):
          pprint.pprint(post)
```
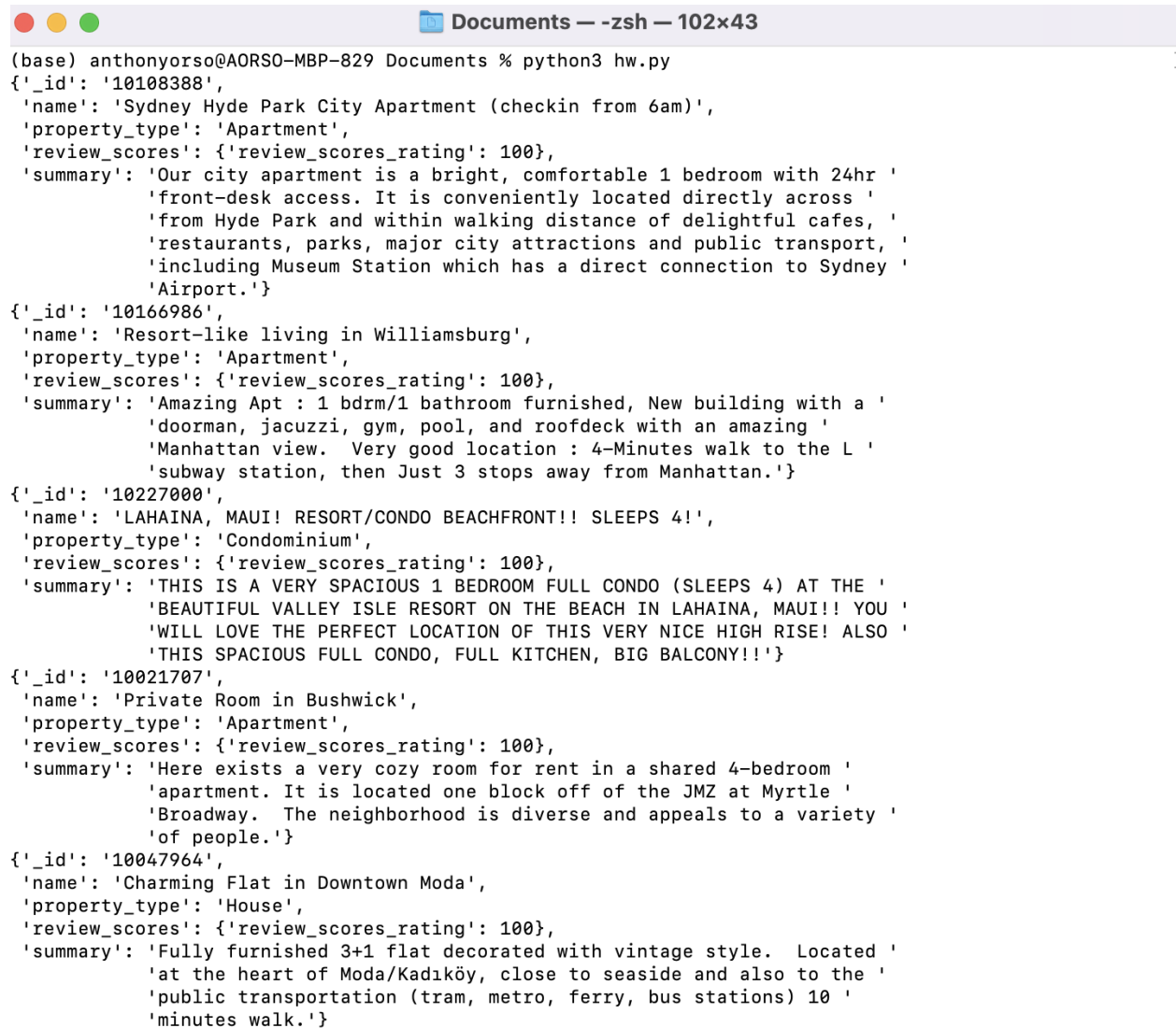
```
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[(base) anthonyorso@AORSO-MBP-829 Documents % python3 hw.py              ]
{'_id': '8736847',
 'bathrooms': Decimal128('8.0'),
 'bedrooms': 1,
 'beds': 8,
 'name': 'Private Rooms in Very Peaceful Environment',
 'property_type': 'Bed and breakfast'}
{'_id': '12591225',
 'bathrooms': Decimal128('8.0'),
 'bedrooms': 5,
 'beds': 10,
 'name': 'Cosy penthouse close to Barra beach',
 'property_type': 'Condominium'}
{'_id': '20955863',
 'bathrooms': Decimal128('8.0'),
 'bedrooms': 7,
 'beds': 7,
 'name': 'Most Beautiful Villa on Bosphorus Istanbul...',
 'property_type': 'Villa'}
{'_id': '11963985',
 'bathrooms': Decimal128('7.0'),
 'bedrooms': 4,
 'beds': 4,
 'name': 'Cobertura de Luxo -Olimpíadas',
 'property_type': 'Apartment'}
{'_id': '17581311',
 'bathrooms': Decimal128('7.0'),
 'bedrooms': 1,
 'beds': 1,
 'name': 'Exterior room with double bed and terrace!!',
 'property_type': 'Serviced apartment'}
(base) anthonyorso@AORSO-MBP-829 Documents % ▏
```
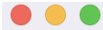
Q6.

```
for top10 in posts.find({},{"_id":1, "name":1, "property_type":1, "summary":1,
"review_scores.review_scores_rating":1}).sort("review_scores.review_scores_rating",-1).limit(10):
    pprint.pprint(top10)
```

```
🔵🟡🟢                        📁 Documents — -zsh — 102×43
(base) anthonyorso@AORSO-MBP-829 Documents % python3 hw.py
{'_id': '10108388',
 'name': 'Sydney Hyde Park City Apartment (checkin from 6am)',
 'property_type': 'Apartment',
 'review_scores': {'review_scores_rating': 100},
 'summary': 'Our city apartment is a bright, comfortable 1 bedroom with 24hr '
            'front-desk access. It is conveniently located directly across '
            'from Hyde Park and within walking distance of delightful cafes, '
            'restaurants, parks, major city attractions and public transport, '
            'including Museum Station which has a direct connection to Sydney '
            'Airport.'}
{'_id': '10166986',
 'name': 'Resort-like living in Williamsburg',
 'property_type': 'Apartment',
 'review_scores': {'review_scores_rating': 100},
 'summary': 'Amazing Apt : 1 bdrm/1 bathroom furnished, New building with a '
            'doorman, jacuzzi, gym, pool, and roofdeck with an amazing '
            'Manhattan view.  Very good location : 4-Minutes walk to the L '
            'subway station, then Just 3 stops away from Manhattan.'}
{'_id': '10227000',
 'name': 'LAHAINA, MAUI! RESORT/CONDO BEACHFRONT!! SLEEPS 4!',
 'property_type': 'Condominium',
 'review_scores': {'review_scores_rating': 100},
 'summary': 'THIS IS A VERY SPACIOUS 1 BEDROOM FULL CONDO (SLEEPS 4) AT THE '
            'BEAUTIFUL VALLEY ISLE RESORT ON THE BEACH IN LAHAINA, MAUI!! YOU '
            'WILL LOVE THE PERFECT LOCATION OF THIS VERY NICE HIGH RISE! ALSO '
            'THIS SPACIOUS FULL CONDO, FULL KITCHEN, BIG BALCONY!!'}
{'_id': '10021707',
 'name': 'Private Room in Bushwick',
 'property_type': 'Apartment',
 'review_scores': {'review_scores_rating': 100},
 'summary': 'Here exists a very cozy room for rent in a shared 4-bedroom '
            'apartment. It is located one block off of the JMZ at Myrtle '
            'Broadway.  The neighborhood is diverse and appeals to a variety '
            'of people.'}
{'_id': '10047964',
 'name': 'Charming Flat in Downtown Moda',
 'property_type': 'House',
 'review_scores': {'review_scores_rating': 100},
 'summary': 'Fully furnished 3+1 flat decorated with vintage style.  Located '
            'at the heart of Moda/Kadıköy, close to seaside and also to the '
            'public transportation (tram, metro, ferry, bus stations) 10 '
            'minutes walk.'}
```

{'_id': '10264100',
 'name': 'Your spot in Copacabana',
 'property_type': 'Apartment',
 'review_scores': {'review_scores_rating': 100},
 'summary': 'Having a large airy living room. The apartment is well divided. '
            'Fully furnished and cozy. The building has a 24h doorman and '
            'camera services in the corridors. It is very well located, close '
            'to the beach, restaurants, pubs and several shops and '
            'supermarkets. And it offers a good mobility being close to the '
            'subway.'}
{'_id': '10141950',
 'name': 'Big, Bright & Convenient Sheung Wan',
 'property_type': 'Apartment',
 'review_scores': {'review_scores_rating': 100},
 'summary': 'Hollywood Rd Studio Only 1 apartment per floor 650sqft! Fast Wifi '
            'and Kitchen! Daily Housekeeping! NEAR 3min walk from MTR 3min '
            'walk from Escalators 5min walk from LKF (Please note I live here '
            'so some belongings kept in wardrobe)'}
{'_id': '10228731',
 'name': 'Quarto inteiro na Tijuca',
 'property_type': 'Apartment',
 'review_scores': {'review_scores_rating': 100},
 'summary': 'O quarto disponível tem uma cama de solteiro, sofá e computador '
            'tipo desktop para acomodação.'}
{'_id': '10096773',
 'name': 'Easy 1 Bedroom in Chelsea',
 'property_type': 'Apartment',
 'review_scores': {'review_scores_rating': 100},
 'summary': 'A comfortable one bedroom for responsible guests. Plenty of '
            "natural light. Walk up building. You'll feel like a local staying "
            'in this residential neighborhood, right next to great food, bars, '
            'subways, the High Line, Chelsea Piers, etc.'}
{'_id': '10059872',
 'name': 'Soho Cozy, Spacious and Convenient',
 'property_type': 'Apartment',
 'review_scores': {'review_scores_rating': 100},
 'summary': 'Clean, fully furnish, Spacious 1 bedroom flat just off the '
            'escalator in Mid Levels. 2 minutes From Soho Bar and Restaurants. '
            "Located in a quiet alley 1 minute from Sun Yat Sen'}
(base) anthonyorso@AORSO-MBP-829 Documents %