

LAPORAN
Jobsheet-14 : Aggregation dan Sorting
TUGAS PRAKTIKUM BASIS DATA LANJUT

Dibimbing oleh: Bapak M.Shulhan Khairy, S.Kom, M.Kom.

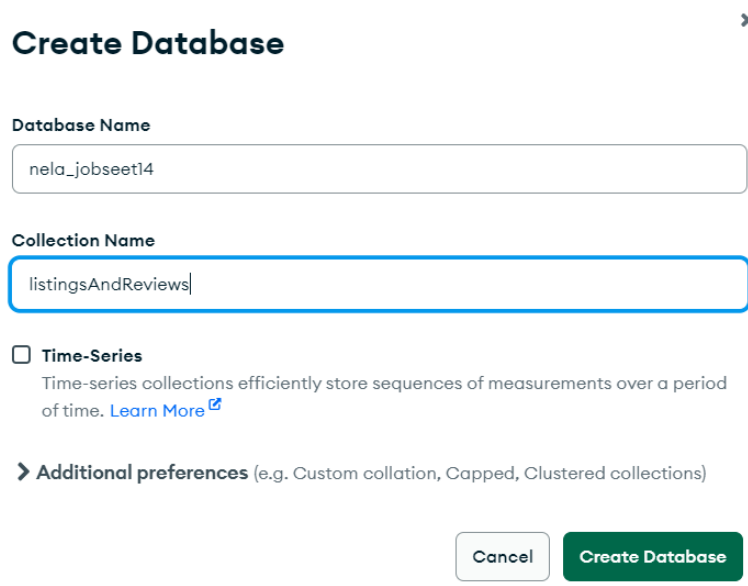
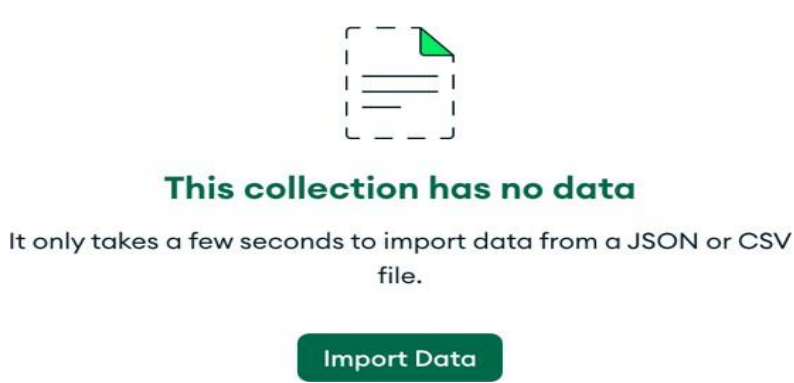


Disusun oleh:
ANARADI OCTA LAVECHIA
2241760007 / SIB-2C

JURUSAN TEKNOLOGI INFORMASI
PRODI D-IV SISTEM INFORMASI BISNIS
POLITEKNIK NEGERI MALANG
2023


Praktikum – Bagian 1: Persiapan

Langkah	Keterangan
1	Gunakan tools Compass untuk koneksi terhadap database MongoDB. Tools ini digunakan untuk membantu melakukan import file kedalam database. https://www.mongodb.com/try/download/compass
2	Buat database baru nama_jobsheet14. Disini saya menggunakan nama database nela_jobsheet14 dan dilanjutkan dengan mengklik 'Create Database'.

	
3	<p>Import file listingsAndReviews.json kedalam database yang anda buat. Gunakan tools Compass untuk membantu import file. File ini merupakan file contoh dari penginapan Airbnb.</p> 

Import

To collection nela_jobseet14.listingsAndReviews

Import file: listingsAndReviews.json 

Options

☐ Stop on errors

Cancel

Import

Selanjutnya gunakan command line untuk melihat apakah data telah berhasil dimasukkan.

4

dika_jobsheet14> db.listingsAndReviews.find()

Berikut adalah output awal dan akhir yang dihasilkan dari inputan yang saya masukan di atas.

```

{
  "_id": "18096546",
  "listing_url": "https://www.airbnb.com/rooms/18096546",
  "name": "Ribeira Charming Duplex",
  "summary": "Fantastic duplex apartment with three bedrooms, located in the historic area of Porto, Ribeira (Cuba) - UNESCO World Heritage Site. Contemporary building fully rehabilitated, without losing their original character.",
  "space": "Privileged views of the Douro river and Ribeira square, our apartment offers the perfect conditions to discover the history and the charm of Porto. Apartment comfortable, charming, romantic and cozy in the heart of Ribeira.",
  "description": "Fantastic duplex apartment with three bedrooms, located in the historic area of Porto, Ribeira (Cuba) - UNESCO World Heritage Site. Contemporary building fully rehabilitated, without losing their original character. Private neighborhood overview: \"In the neighborhood of the river, you can find several restaurants as varied flavors, but without forgetting the so traditional northern food. You can also find several bars and pubs to unwind after a day's work.\" notes: 'Lose yourself in the narrow streets and staircases zone, have lunch in pubs and typical restaurants, and find the renovated cafes and shops in town. If you like exercise, rent a bicycle in the area and ride along the river.' transit: 'Transport: Metro station and S. Bento railway Sain; Bus stop a 50 meters; Lift Guindais (Funicular) 50 meters; Tuc Tuc to get around the city; Buses tourist; Cycling through the marginal drive; Cable car in C access: 'We are always available to help guests. The house is fully available to guests. We are always ready to assist guests, when possible we pick the guests at the airport. This service transfer have a cost per person. We will a interaction: 'Got - 18 € / night Dog - € 7,5 / night', house_rules: 'Make the house your home...', property_type: 'House', room_type: 'Entire home/apt', bed_type: 'Real Bed', minimum_nights: '21', maximum_nights: '30', cancellation_policy: 'moderate', last_scraped: '2019-02-10T05:00:00.000Z', calendar_last_scraped: '2019-02-10T05:00:00.000Z', first_review: '2016-01-03T05:00:00.000Z', last_review: '2019-01-20T05:00:00.000Z', accommodates: 8, bedrooms: 3, beds: 5, number_of_reviews: 51, bathrooms: Decimal128('1.0'), amenities: [
    'TV',
    'Cable TV',
    'Wifi',
    'Kitchen',
    'Paid parking off premises',
    'Smoking allowed',
    'Pets allowed',
    'Buzzer/wireless intercom'
  ]
}

```

```

{
  "_id": "18096546",
  "listing_url": "https://www.airbnb.com/rooms/18096546",
  "name": "Ribeira Charming Duplex",
  "summary": "Fantastic duplex apartment with three bedrooms, located in the historic area of Porto, Ribeira (Cuba) - UNESCO World Heritage Site. Contemporary building fully rehabilitated, without losing their original character.",
  "space": "Privileged views of the Douro river and Ribeira square, our apartment offers the perfect conditions to discover the history and the charm of Porto. Apartment comfortable, charming, romantic and cozy in the heart of Ribeira.",
  "description": "Fantastic duplex apartment with three bedrooms, located in the historic area of Porto, Ribeira (Cuba) - UNESCO World Heritage Site. Contemporary building fully rehabilitated, without losing their original character. Private neighborhood overview: \"In the neighborhood of the river, you can find several restaurants as varied flavors, but without forgetting the so traditional northern food. You can also find several bars and pubs to unwind after a day's work.\" notes: 'Lose yourself in the narrow streets and staircases zone, have lunch in pubs and typical restaurants, and find the renovated cafes and shops in town. If you like exercise, rent a bicycle in the area and ride along the river.' transit: 'Transport: Metro station and S. Bento railway Sain; Bus stop a 50 meters; Lift Guindais (Funicular) 50 meters; Tuc Tuc to get around the city; Buses tourist; Cycling through the marginal drive; Cable car in C access: 'We are always available to help guests. The house is fully available to guests. We are always ready to assist guests, when possible we pick the guests at the airport. This service transfer have a cost per person. We will a interaction: 'Got - 18 € / night Dog - € 7,5 / night', house_rules: 'Make the house your home...', property_type: 'House', room_type: 'Entire home/apt', bed_type: 'Real Bed', minimum_nights: '21', maximum_nights: '30', cancellation_policy: 'moderate', last_scraped: '2019-02-10T05:00:00.000Z', calendar_last_scraped: '2019-02-10T05:00:00.000Z', first_review: '2016-01-03T05:00:00.000Z', last_review: '2019-01-20T05:00:00.000Z', accommodates: 8, bedrooms: 3, beds: 5, number_of_reviews: 51, bathrooms: Decimal128('1.0'), amenities: [
    'TV',
    'Cable TV',
    'Wifi',
    'Kitchen',
    'Paid parking off premises',
    'Smoking allowed',
    'Pets allowed',
    'Buzzer/wireless intercom'
  ]
}

```

5

[Soal-1] Screenshot satu data terakhir hasil import data yang telah diinputkan.

Berikut adalah satu data terakhir hasil import data yang telah diinputkan.

ADD DATA
EXPORT DATA

1 - 20 of 5555

#	listingsAndReviews						
	_id String	listing_url String	name String	summary String	space String	description String	neighborhood_overview String
1	"10006546"	"https://www.airbnb.com/rooms..."	"Ribeira Charming Duplex"	"Fantastic duplex apartment w..."	"Privileged views of the Dour..."	"Fantastic duplex apartment w..."	"In the neighborhood of the r..."
2	"10009999"	"https://www.airbnb.com/rooms..."	"Horto flat with small garden"	"One bedroom + sofa-bed in qu..."	"Lovely one bedroom + sofa-be..."	"One bedroom + sofa-bed in qu..."	"This charming ground floor f..."
3	"1001265"	"https://www.airbnb.com/rooms..."	"Ocean View Walkiki Marina w..."	"A short distance from Honolu..."	"Great studio located on Ala ..."	"A short distance from Honolu..."	"You can breath ocean as well..."
4	"10021787"	"https://www.airbnb.com/rooms..."	"Private Room in Bushwick"	"Here exists a very cozy room..."	""	"Here exists a very cozy room..."	""
5	"10030955"	"https://www.airbnb.com/rooms..."	"Apt Linda Vista Lagoa - Rio"	"Quarto com vista para a Lago..."	""	"Quarto com vista para a Lago..."	""
6	"1003530"	"https://www.airbnb.com/rooms..."	"New York City - Upper West S..."	""	"Murphy bed, optional second ..."	"Murphy bed, optional second ..."	"Great neighborhood - many te..."
7	"10038406"	"https://www.airbnb.com/rooms..."	"Copacabana Apartment Posto 6"	"The Apartment has a living r..."	"The apartment has a living r..."	"The Apartment has a living r..."	"Copacabana in the South zone..."
8	"10047964"	"https://www.airbnb.com/rooms..."	"Charming flat in Downtown Mo..."	"Fully furnished 3x1 flat dec..."	"The apartment is composed of..."	"Fully furnished 3x1 flat dec..."	"With its diversity Moda- Kad..."
9	"10051364"	"https://www.airbnb.com/rooms..."	"Catete's Colonial Big House ..."	"Old floor, intirely reformed..."	"Este quarto está preparado p..."	"Old floor, intirely reformed..."	"A Grande Morada situa-se no ..."
10	"10057447"	"https://www.airbnb.com/rooms..."	"Modern Spacious 1 Bedroom Lo..."	"Prime location, amazing high..."	"Lot's of plants and lights. ..."	"Prime location, amazing high..."	""
11	"10057826"	"https://www.airbnb.com/rooms..."	"Deluxe Loft Suite"	"Loft Suite Deluxe @ Henry No..."	"This loft unit features a ki..."	"Loft Suite Deluxe @ Henry No..."	"Greenpoint is an artsy Brook..."
12	"10059244"	"https://www.airbnb.com/rooms..."	"Ligne verte - à 15 min de m..."	"À 30 secondes du métro Jolie..."	""	"À 30 secondes du métro Jolie..."	"L'appartement se trouve à 4 ..."
13	"10059872"	"https://www.airbnb.com/rooms..."	"Soho Cozy, Spacious and Conv..."	"Clean, fully furnish, Spacio..."	""	"Clean, fully furnish, Spacio..."	""
14	"10066928"	"https://www.airbnb.com/rooms..."	"3 chambres au coeur du Plate..."	"Notre appartement comporte 3..."	"Notre logement est lumineu..."	"Notre appartement comporte 3..."	"L'appartement se situe au co..."
15	"10069642"	"https://www.airbnb.com/rooms..."	"Ótimo Apto proximo Parque Ol..."	"Apartamento próximo ao centr..."	""	"Apartamento próximo ao centr..."	""
16	"10082307"	"https://www.airbnb.com/rooms..."	"Double Room en-suite (307)"	"A standard double room with ..."	""	"A standard double room with ..."	""
17	"10082422"	"https://www.airbnb.com/rooms..."	"Nice room in Barcelona Cente..."	"Hi! Cozy double bed room in ..."	"Nice flat in the central nei..."	"Hi! Cozy double bed room in ..."	"Dreta de l'Eixample"
18	"10083468"	"https://www.airbnb.com/rooms..."	"Be Happy in Porto"	"Be Happy Apartment is an ana..."	"Be Happy Apartment is housed..."	"Be Happy Apartment is an ana..."	"Be happy in Porto" offers a..."
19	"10084023"	"https://www.airbnb.com/rooms..."	"City center private room wit..."	"House is located 5mins walk ..."	"The house is old fashion typ..."	"House is located 5mins walk ..."	"Cheapest food, electronic de..."
20	"10091713"	"https://www.airbnb.com/rooms..."	"Surry Hills Studio - Your Pe..."	"This spacious, light filled ..."	"Comfortable studio with a gr..."	"This spacious, light filled ..."	"Surry Hills is a vibrant ecl..."

```

_id: "10091713"
listing_url: "https://www.airbnb.com/rooms/10091713"
name: "Surry Hills Studio - Your Perfect Base in Sydney"
summary: "This spacious, light filled studio has everything you need to enjoy Sy..."
space: "Comfortable studio with a great layout. The bathroom has a full size b..."
description: "This spacious, light filled studio has everything you need to enjoy Sy..."
neighborhood_overview: "Surry Hills is a vibrant eclectic community and an amazing place to li..."
notes: "WiFi, Apple TV with Netflix App (for use with your own iTunes / Netfli..."
transit: "Travel Card 'Opal' travel cards work on all Sydney public transport (t..."
access: "You have full use of the entire studio and complete privacy during you..."
interaction: "You have complete privacy during your stay."
house_rules: "No smoking: No smoking any substance, including e-cigarettes. Lost Ke..."
property_type: "Apartment"
room_type: "Entire home/apt"
bed_type: "Real Bed"
minimum_nights: "10"
maximum_nights: "21"
cancellation_policy: "strict_14_with_grace_period"
last_scraped: 2019-03-07T05:00:00.000+00:00
calendar_last_scraped: 2019-03-07T05:00:00.000+00:00
first_review: 2016-12-29T05:00:00.000+00:00
last_review: 2018-03-18T04:00:00.000+00:00
accommodates: 2
bedrooms: 0
beds: 1
number_of_reviews: 64
bathrooms: 1.0
amenities: Array (18)
price: 181.00
security_deposit: 300.00
cleaning_fee: 50.00
extra_people: 0.00
guests_included: 1
images: Object
host: Object
address: Object
availability: Object
review_scores: Object
reviews: Array (64)

```

↑ HIDE 14 FIELDS

Praktikum – Bagian 2: MATCH

Langkah	Keterangan
1	<p>Jalankan fungsi match seperti pada gambar berikut:</p> <pre>db.listingsAndReviews.aggregate([{\$match:{bedrooms:20}}])</pre> <p>dika_jobsheet14> db.listingsAndReviews.aggregate([{\$match:{bedrooms:20}}])</p> <p>Fungsi tersebut akan menampilkan daftar penginapan yang memiliki kamar sebanyak 20 buah.</p> <p>Berikut adalah output awal dan akhir yang dihasilkan dari inputan yang saya masukan di atas.</p> <pre> { "_id": "207832887", "listing_url": "https://www.airbnb.com/rooms/207832887", "name": "Yenus Hotel Old City", "summary": "Yenus Hotel is set in the Fatih district in Istanbul, 140 metres from Sirkeci Train Station. This hotel features free WiFi. Each room at this hotel is air conditioned and features a flat-screen TV and a bottle. Free toiletries, towels and a hairdryer in the bathroom with daily cleaning. You will find...", "description": "Yenus Hotel is set in the Fatih district in Istanbul, 140 metres from Sirkeci Train Station. This hotel features free WiFi. Each room at this hotel is air conditioned and features a flat-screen TV and a bottle. Free toiletries, towels and a hairdryer in the bathroom with daily cleaning. You will find...", "neighborhood_overview": "", "notes": "", "transit": "", "access": "", "interaction": "", "house_rules": [{ "property_type": "Boutique hotel", "room_type": "Private room", "bed_type": "Real Bed", "airbnb_host_id": "1120", "calendar_last_scraped": "2019-01-18T03:09:00.000Z", "first_review": "2018-01-18T03:09:00.000Z", "last_review": "2018-01-18T03:09:00.000Z", "accommodates": 10, "bedrooms": 20, "bath": 10, "number_of_reviews": 1, "last_review": "2018-01-18T03:09:00.000Z", "amenities": ["TV", "WiFi", "Air conditioning", "Washing machine", "Heating", "Family/kid friendly", "Smoke detector", "Safety card", "Fire extinguisher", "Essentials", "Shampoo", "Lock on bedroom door", "Hangers", "Hair dryer", "Iron", "Laptop friendly workspace"], "security_deposit": "Decal128(0.00)", "cleaning_fee": "Decal128(0.00)", "extra_people": "Decal128(0.00)", "guests_included": "Decal128(0)", "images": [{ "thumbnail_url": "", "picture_url": "https://a1.muscache.com/pictures/12345678-9abc-4def-8ghi-jklmnopqrstu.jpg?i=1&w=1024&h=1024", "picture_url": "" }], "host": { "host_id": "146132057", "host_url": "https://www.airbnb.com/users/show/146132057", "host_name": "Mehmet", "host_location": "TR", "host_about": "", "host_response_time": "within a few hours", "host_thumbnail_url": "https://a1.muscache.com/pictures/user/12345678-9abc-4def-8ghi-jklmnopqrstu.jpg?i=1&w=1024&h=1024", "host_picture_url": "https://a1.muscache.com/pictures/user/12345678-9abc-4def-8ghi-jklmnopqrstu.jpg?i=1&w=1024&h=1024", "host_neighborhood": "", "host_response_rate": 100, "host_is_superhost": false, "host_has_profile_pic": true, "host_identity_verified": false, "host_listings_count": 4, "host_total_listings_count": 4, "host_verifications": ["email", "phone"] }, "address": { "street": "Fatih, Istanbul, Turkey", "country": "Turkey", "government_area": "Fatih", "market": "Istanbul", "country": "Turkey", "country_code": "TR", "location": { "type": "Point", "coordinates": [28.9545, 41.0138] }, "is_location_exact": false } }], } </pre>

	
<p>2.</p>	<p>[Soal-2] Gatot adalah seorang traveler yang elegan, Sehingga dia hanya mau menginap di hotel-hotel yang memiliki suasana etnic-clasic. Hotel-hotel yang memiliki suasana etnic-clasic merupakan hotel dengan property_type : 'Boutique hotel' . Bantulah Suwito untuk menemukan salah satu hotel tersebut.</p> <p>Screen shot satu data hotel pertama yang muncul beserta querynya!</p> <p>Berikut adalah query beserta satu output yang dihasilkan dari inputan yang saya masukan ('db.listingsAndReviews.find({ "property_type": "Boutique hotel" }).limit(1)') .</p> 

```

    'Fire extinguisher',
    'Essentials',
    'Shampoo',
    '24-hour check-in',
    'Hangers',
    'Hair dryer',
    'Iron',
    'High chair',
    'Children's books and toys',
    'Crib',
    'Hot water',
    'Luggage dropoff allowed',
    'Host greets you'
  ],
  price: Decimal128("385.80"),
  extra_people: Decimal128("0.80"),
  guests_included: Decimal128("3"),
  images: [
    thumbnail_url: '',
    medium_url: '',
    picture_url: 'https://ab-muscache.com/1w/pictures/81888bd2-3805-4cbe-8762-d8ede1a1c2e7.jpg?aki_policy=large',
    xl_picture_url: ''
  ],
  host: {
    host_id: '65173434',
    host_url: 'https://www.airbnb.com/users/show/65173434',
    host_name: 'Yagte Evrensel',
    host_location: 'Istanbul, Istanbul, Turkey',
    host_about: '',
    host_thumbnail_url: 'https://ab-muscache.com/1w/pictures/657b7573-45bd-4614-b4f7-c7de7fe485b.jpg?aki_policy=profile_small',
    host_picture_url: 'https://ab-muscache.com/1w/pictures/657b7573-45bd-4614-b4f7-c7de7fe485b.jpg?aki_policy=profile_x_medium',
    host_neighbourhood: 'Sultanahmet',
    host_is_superhost: false,
    host_has_profile_pic: true,
    host_identity_verified: false,
    host_listings_count: 2,
    host_total_listings_count: 2,
    host_verifications: [
      'email',
      'phone'
    ]
  },
  address: {
    street: 'Fatih, Istanbul, Turkey',
    suburb: 'Sultanahmet',
    government_area: 'Fatih',
    market: 'Istanbul',
    country: 'Turkey',
    country_code: 'TR',
    location: {
      type: 'Point',
      coordinates: [
        28.98526,
        41.00732
      ]
    },
    is_location_exact: true
  },
  availability: {
    availability_30: 30,
    availability_60: 60,
    availability_90: 90,
    availability_365: 365
  },
  review_scores: {
    reviews: [
    ]
  }
}
Atlas atlas-k8wq9-shard-0 [primary] nala_jobaset14>

```

```

Host_thumbnail_url: 'https://ab-muscache.com/1w/pictures/657b7573-45bd-4614-b4f7-c7de7fe485b.jpg?aki_policy=profile_small',
Host_picture_url: 'https://ab-muscache.com/1w/pictures/657b7573-45bd-4614-b4f7-c7de7fe485b.jpg?aki_policy=profile_x_medium',
Host_neighbourhood: 'Sultanahmet',
Host_is_superhost: false,
Host_has_profile_pic: true,
Host_identity_verified: false,
Host_listings_count: 2,
Host_total_listings_count: 2,
Host_verifications: [
  'email',
  'phone',
  'work_email'
]
},
address: {
  street: 'Fatih, Istanbul, Turkey',
  suburb: 'Sultanahmet',
  government_area: 'Fatih',
  market: 'Istanbul',
  country: 'Turkey',
  country_code: 'TR',
  location: {
    type: 'Point',
    coordinates: [
      28.98526,
      41.00732
    ]
  },
  is_location_exact: true
},
availability: {
  availability_30: 30,
  availability_60: 60,
  availability_90: 90,
  availability_365: 365
},
review_scores: {
  reviews: [
  ]
}
Atlas atlas-k8wq9-shard-0 [primary] nala_jobaset14>

```

3.

[Soal-3] Pada akhir tahun ini Gatot mengajak keluarganya untuk staycation di hotel bernuansa etnic-clasic tersebut. Dikarenakan dia mengajak keluarganya, maka dia membutuhkan 4 tempat tidur (**beds**). Bantulah Gatot untuk menemukan hotel tersebut. Tuliskan 2 nama hotel yang diinginkan dan query untuk mencarinya!

Berikut adalah query beserta salah satu output yang dihasilkan dari inputan yang saya masukan

`db.listingsAndReviews.find({ beds: { $gte: 4 }}).limit(2).sort({ beds: 1 }).pretty();`

```

Atlas atlas-k8wq9-shard-0 [primary] nala_jobaset14>
{
  "_id": "65173434",
  "listing_url": "https://www.airbnb.com/users/show/65173434",
  "name": "Yagte Evrensel",
  "host_id": "65173434",
  "host_url": "https://www.airbnb.com/users/show/65173434",
  "host_name": "Yagte Evrensel",
  "host_about": "",
  "host_thumbnail_url": "https://ab-muscache.com/1w/pictures/657b7573-45bd-4614-b4f7-c7de7fe485b.jpg?aki_policy=profile_small",
  "host_picture_url": "https://ab-muscache.com/1w/pictures/657b7573-45bd-4614-b4f7-c7de7fe485b.jpg?aki_policy=profile_x_medium",
  "host_neighbourhood": "Sultanahmet",
  "host_is_superhost": false,
  "host_has_profile_pic": true,
  "host_identity_verified": false,
  "host_listings_count": 2,
  "host_total_listings_count": 2,
  "host_verifications": [
    "email",
    "phone",
    "work_email"
  ],
  "address": {
    "street": "Fatih, Istanbul, Turkey",
    "suburb": "Sultanahmet",
    "government_area": "Fatih",
    "market": "Istanbul",
    "country": "Turkey",
    "country_code": "TR",
    "location": {
      "type": "Point",
      "coordinates": [
        28.98526,
        41.00732
      ]
    },
    "is_location_exact": true
  },
  "availability": {
    "availability_30": 30,
    "availability_60": 60,
    "availability_90": 90,
    "availability_365": 365
  },
  "review_scores": {
    "reviews": [
    ]
  }
}
Atlas atlas-k8wq9-shard-0 [primary] nala_jobaset14>

```

```

    'Elevator',
    'Buzzer/wireless intercom',
    'Heating',
    'Family/kid friendly',
    'Suitable for events',
    'Dryer',
    'Smoke detector',
    'Carbon monoxide detector',
    'First aid kit',
    'Safety card',
    'Fire extinguisher',
    'Essentials',
    'Shampoo',
    '24-hour check-in',
    'Hangers',
    'Hair dryer',
    'Iron',
    'Laptop friendly workspace',
    'Self check-in',
    'Building staff',
    'Crib',
    'Hot water',
    'Luggage dropoff allowed',
    'Long term stays allowed'
  ],
  prices: Decimal128("838.00"),
  extra_people: Decimal128("9.00"),
  guests_includes: Decimal128("1"),
  mascot {
    thumbnail_url: "",
    medium_url: "",
    picture_url: "https://w.muscache.com/ta/pictures/fbdaf063-9682-4868-9838-f515994791a.jpg?sk=ai_policy,large",
    xl_picture_url: ""
  }
},
host {
  host_id: "51471538",
  host_url: "https://www.airbnb.com/users/show/51471538",
  host_name: "Ahmet",
  host_location: "Istanbul, Istanbul, Turkey",
  host_about: ""
}

```

```

MONDOOSH
host_response_time: 'within an hour',
host_thumbnail_url: 'https://st.muscache.com/ta/pictures/user/d8c83d08-16da-455c-818a-798064132e0a.jpg?aki_policy=profile_small',
host_picture_url: 'https://st.muscache.com/ta/pictures/user/d8c83d08-16da-455c-818a-798064132e0a.jpg?aki_policy=profile_x_medium',
host_neighbourhood: 'İşıkli',
host_response_rate: 100,
host_is_superhost: false,
host_is_professional: false,
host_identity_verified: false,
host_listings_count: 16,
host_total_listings_count: 16,
host_verifications: {
  'email':
  'phone':
  'reviews':
},
},
address: {
  street: 'İşıkli, İstanbul, Turkey',
  suburb: 'İşıkli',
  government_area: 'İstanbul',
  market: 'İstanbul',
  country: 'Turkey',
  country_code: 'TR',
  location: {
    type: 'Point',
    coordinates: [
      28.93713,
      41.04041
    ]
  },
  is_location_exact: false
},
},
availability: {
  availability_30: 80,
  availability_30_60: 80,
  availability_30_90: 80,
  availability_30_180: 80
},
review_scores: {
  review_scores_accuracy: 7,

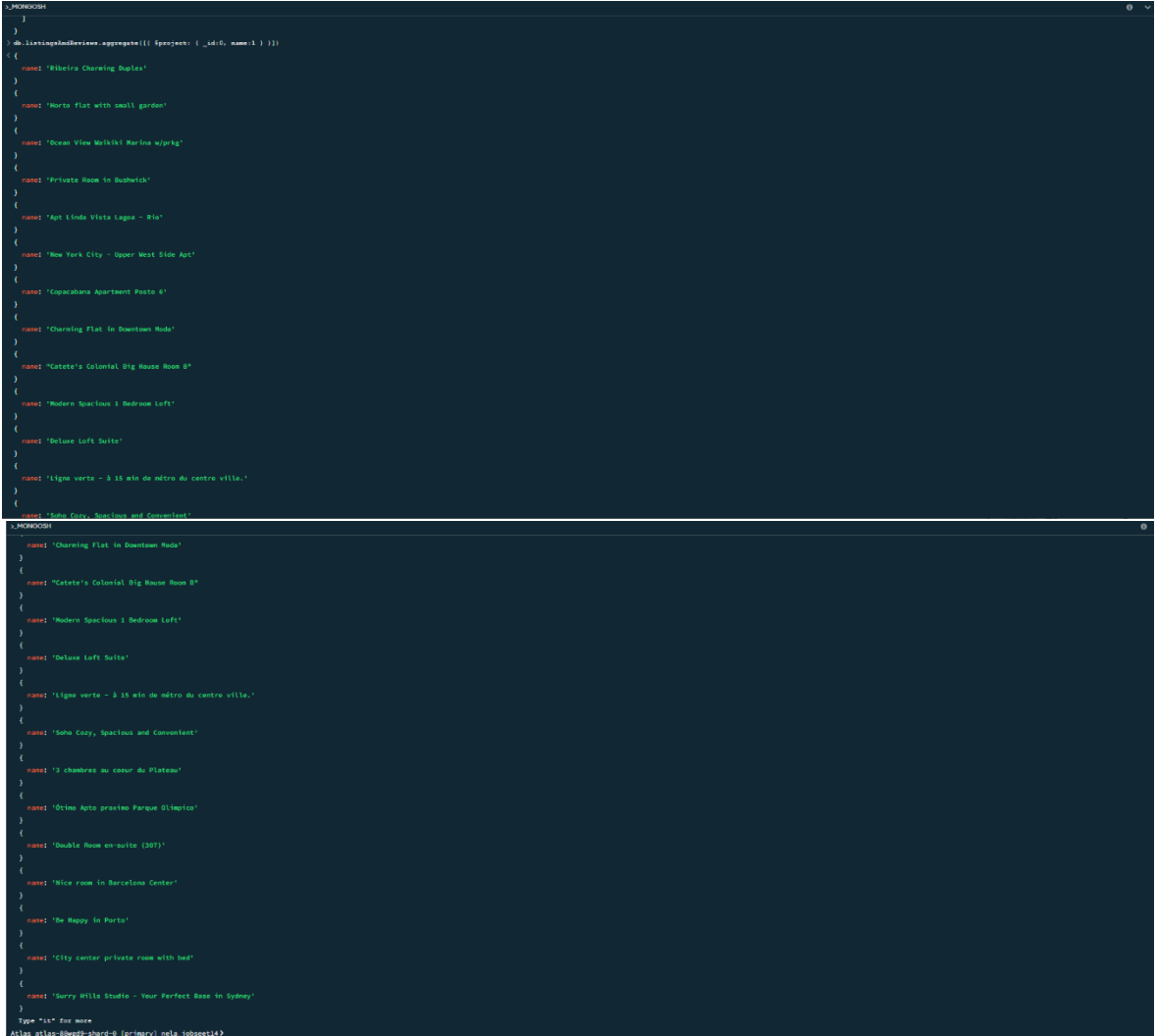
```

```

review_scores_value": 47,
review_scores_rating": 47
},
reviewer": [
{
  "_id": "00335578",
  "date": "2016-02-07T04:00:00.000Z",
  "living_room": "100335578",
  "reviewer_id": "00335568",
  "reviewer_name": "Johnno",
  "comment": "This place and the service has a lot of potential but certainly has not reached its prime yet. Ahmet was very quick to respond and approve my reservation which is great. He was also very responsive to additional questions. The residence service at the counter was 10/10" *
  "The lobby of the hotel is small." *
  "I stayed in the two bedroom option." *
  "I reserved a flat with two bedrooms and only got one. I complained and they relocated me to a bigger apartment with two separate beds, but still ONE bedroom. Upon booking make sure to confirm its two bedrooms you sign up to." *
  "Saturday seemed to be national construction day which meant low rise and noise. Sunday there was activity too although less loud. Normally not a problem but not great when you experienced some of the Istanbul night life the night before. A notice about this at least would be great." *
},
{
  "_id": "00100073",
  "date": "2016-04-08T07:04:00.000Z",
  "living_room": "100100073",
  "reviewer_id": "00057231",
  "reviewer_name": "Muhammed",
  "comment": "The location is just perfect. You can find everything in the neighborhood such as restaurants, supermarket, exchange, shops.....etc." *
  "The lobby of the hotel is small." *
  "I stayed in the two bedroom option." *
  "Unfortunately, the second room has the bathroom while the master bedroom has none. You have to use the one in the living room." *
  "Some of the staff in the hotel are very very helpful like Mustafa and some are friendly like Muhammed."
},
{
  "_id": "17937488",
  "date": "2017-08-07T04:00:00.000Z",
  "living_room": "100179374",
  "reviewer_id": "00223042",
  "reviewer_name": "Abdu'lrasim",
  "comment": "They have to check the type of apartment"
},
{
  "_id": "1"
}
]
}
}
Atlas atlas-aws-ec2-shard-0 (primary) nls_joboset4

```


Praktikum – Bagian 3: PROJECT

Langkah	Keterangan
1	<p>Jalankan fungsi project seperti pada gambar berikut:</p> <pre>dika_jobsheet14> db.listingsAndReviews.aggregate([{ \$project: { _id:0,name:1 } }])</pre> <p>Fungsi tersebut akan menampilkan daftar nama penginapan saja.</p> <p>Berikut adalah output yang dihasilkan dari inputan yang saya masukan di atas.</p> 
2.	<p>[Soal-4] Reyhan adalah anak yang baik sehingga dia sering mengajak keluarganya berlibur. Untuk memutuskan tempat berlibur keluarganya, reyhan memerlukan data nama hotel dan juga berapa kamar yang tersedia. Bantulah Reyhan untuk mendapatkan daftar nama hotel (name) dan juga jumlah kasurnya (beds).</p> <p>Screenshot hasil nya dan juga querynya!</p> <p>Berikut adalah query beserta salah satu output yang dihasilkan dari inputan yang saya masukan</p> <pre>db.listingsAndReviews. find({}, {name: 1, beds: 1 })</pre>



```
},MONOCOSH
}
Type "is" for more
No listings have been found. Find it. (name: 1, beds: 1)
{
  _id: '10060540',
  name: 'Ribeira Charming Duplex',
  beds: 5
}
{
  _id: '10089999',
  name: 'Morto Flat with small garden',
  beds: 2
}
{
  _id: '1001205',
  name: 'Ocean View Walkiki Marina w/prkg',
  beds: 1
}
{
  _id: '10011787',
  name: 'Private Home in Bupwicks',
  beds: 1
}
{
  _id: '10030955',
  name: 'Apt Linda Vista Lagoon - Rio',
  beds: 1
}
{
  _id: '10030330',
  name: 'New York City - Upper West Side Apt',
  beds: 1
}
{
  _id: '10030480',
  name: 'Copacabana Apartment Posto 8',
  beds: 1
}
{
  _id: '1007064',

```

```
},MONOCOSH
name: 'Charming Flat in Downtown Mode',
beds: 6
}
{
  _id: '10051164',
  name: 'Castro's Colonial Big House Room B',
  beds: 6
}
{
  _id: '10057647',
  name: 'Modern Spacious 1 Bedroom Left',
  beds: 2
}
{
  _id: '10057620',
  name: 'Deluxe Loft Suite',
  beds: 2
}
{
  _id: '10059244',
  name: 'Ligne verte - à 15 min de métro du centre ville.',
  beds: 1
}
{
  _id: '10059873',
  name: 'Soho Cozy, Spacious and Convenient',
  beds: 2
}
{
  _id: '10060928',
  name: '3 chambres au coeur du Plateau',
  beds: 3
}
{
  _id: '10069642',
  name: 'Ótimo Apto próximo Parque Olímpico',
  beds: 2
}
{
  _id: '10082387',

```

```
},MONOCOSH
name: 'Soho Cozy, Spacious and Convenient',
beds: 2
}
{
  _id: '10060928',
  name: '3 chambres au coeur du Plateau',
  beds: 3
}
{
  _id: '10069642',
  name: 'Ótimo Apto próximo Parque Olímpico',
  beds: 2
}
{
  _id: '10082387',
  name: 'Double Room en-suite (387)',
  beds: 1
}
{
  _id: '10083422',
  name: 'Nice room in Barcelona Center',
  beds: 2
}
{
  _id: '10083408',
  name: 'Be Happy in Porto',
  beds: 1
}
{
  _id: '10084823',
  name: 'City Center private room with bed',
  beds: 1
}
{
  _id: '10091713',
  name: 'Surry Hills Studio - Your Perfect Base in Sydney',
  beds: 1
}
Type "is" for more
Atlas atlas-08ug9-shard-0 (primary) mla_jobost4>
```

Praktikum – Bagian 4: GROUP

Langkah	Keterangan
1	<p>Jalankan fungsi group sebagai berikut:</p> <pre>[dika_jobsheet14> db.listingsAndReviews.aggregate([{\$group: { _id: '\$property_type' } }])</pre> <p>Fungsi tersebut akan menampilkan daftar nama jenis property tanpa redudan / kembar.</p> <p>Berikut adalah output yang dihasilkan dari inputan yang saya masukan di atas.</p> <pre> _MONGODB> > db.listingsAndReviews.aggregate([{\$group: { _id: '\$property_type' } }]) OSError: class(*):() can't access attribute *() because *() is not a valid attribute name > db.listingsAndReviews.aggregate([{\$group: { _id: '\$property_type' } }]) { "_id": "Resort" } { "_id": "Treehouse" } { "_id": "Bungalow" } { "_id": "Tiny house" } { "_id": "Heritage hotel (India)" } { "_id": "House" } { "_id": "Other" } { "_id": "Pension (South Korea)" } { "_id": "Castle" } { "_id": "Loft" } { "_id": "Barn" } { "_id": "Guesthouse" } } _MONGODB> { "_id": "Pension (South Korea)" } { "_id": "Castle" } { "_id": "Loft" } { "_id": "Barn" } { "_id": "Guesthouse" } { "_id": "Casa particular (Cuba)" } { "_id": "Bed and breakfast" } { "_id": "Guest suite" } { "_id": "Campsite" } { "_id": "Houseboat" } { "_id": "Villa" } { "_id": "Chalet" } { "_id": "Camper/BV" } } Type "is" for more Atlas atlas-08eq2-shard-0 [primary] mla_jobsheet14 </pre>

Jalankan fungsi group-sum seperti pada gambar berikut:

```
[dika_jobsheet14> db.listingsAndReviews.aggregate([{$group: { _id: '$property_type', bedrooms: {$sum:1} } }]])
```

Fungsi tersebut akan menampilkan daftar tipe dari hotel dan juga jumlah total kamar.

Berikut adalah output yang dihasilkan dari inputan yang saya masukan di atas.

2.

```
> MONDOOSH
Type "use mongo"
> db.listingsAndReviews.aggregate([{$group: { _id: '$property_type', bedrooms: {$sum:1} } }]])
{
  "_id": "Serviced apartment",
  "bedrooms": 185
}
{
  "_id": "Cabin",
  "bedrooms": 15
}
{
  "_id": "Apartment",
  "bedrooms": 3626
}
{
  "_id": "Tiny house",
  "bedrooms": 7
}
{
  "_id": "Castle",
  "bedrooms": 1
}
{
  "_id": "Farm stay",
  "bedrooms": 9
}
{
  "_id": "Host",
  "bedrooms": 2
}
{
  "_id": "Condominium",
  "bedrooms": 399
}
{
  "_id": "Cottage",
  "bedrooms": 28
}
{
  "_id": "Boutique hotel",
  "bedrooms": 53
}
```

```
> MONDOOSH
{
  "_id": "Boutique hotel",
  "bedrooms": 53
}
{
  "_id": "Townhouse",
  "bedrooms": 185
}
{
  "_id": "Earth house",
  "bedrooms": 1
}
{
  "_id": "Nature lodge",
  "bedrooms": 2
}
{
  "_id": "Hostel",
  "bedrooms": 34
}
{
  "_id": "Aparthotel",
  "bedrooms": 23
}
{
  "_id": "Muti",
  "bedrooms": 1
}
{
  "_id": "Train",
  "bedrooms": 1
}
{
  "_id": "Guest suite",
  "bedrooms": 81
}
{
  "_id": "Casa particular (Cuba)",
  "bedrooms": 9
}
{
  "_id": "Campsite",
  "bedrooms": 1
}
}
Type "use mongo"
Atlas atlas-8l6gd0-shard-0 [primary] neta_jobsheet14>
```

Jalankan fungsi berikut:

```
[dika_jobsheet14> db.listingsAndReviews.aggregate([ { $group: { _id:'$property_type',max:{$max:"$bedrooms"} } } ])
```

Fungsi tersebut akan menampilkan daftar tipe dari hotel dan juga kamar terbanyak yang dimiliki dari hotel-hotel yang memiliki tipe tersebut.

Berikut adalah output yang dihasilkan dari inputan yang saya masukan di atas.

3.

```
[MONGODB]
[db listingsAndReviews.aggregate({ $group: { _id: '$property_type', max:[max('$bedrooms')] } })]
> Error: allowDiskUse() cannot be used in conjunction with $group or $insert. Because "line" in x's line object has "allowDiskUse" in its options...inserted....) would not be allowed.
[db listingsAndReviews.aggregate({ $group: { _id: '$property_type', max:[max('$bedrooms')] } })]
{
  "_id": "Barr",
  "max": 2
}
{
  "_id": "left",
  "max": 7
}
{
  "_id": "Houseboat",
  "max": 5
}
{
  "_id": "House",
  "max": 9
}
{
  "_id": "cottage",
  "max": 6
}
{
  "_id": "Pension (South Korea)",
  "max": 8
}
{
  "_id": "Resort",
  "max": 2
}
{
  "_id": "Treehouse",
  "max": 3
}
{
  "_id": "Bungalow",
  "max": 3
}
{
  "_id": "Heritage hotel (India)",
  "max": 1
}
{
  "_id": "Hotel",
  "max": 10
}
{
  "_id": "Villa",
  "max": 7
}
{
  "_id": "Chalet",
  "max": 2
}
{
  "_id": "Camping/RV",
  "max": 6
}
{
  "_id": "Guest suite",
  "max": 4
}
{
  "_id": "Bed and breakfast",
  "max": 16
}
{
  "_id": "Bunthouse",
  "max": 2
}
{
  "_id": "Casa particular (Cuba)",
  "max": 2
}
{
  "_id": "Capsule",
  "max": 1
}
{
  "_id": "Hostel",
  "max": 1
}
Type "it" for more
Atlas atlas-mongodb-shard-0 [primary] mela_johas@
```

Jalankan fungsi berikut:

```
[dika_jobsheet14> db.listingsAndReviews.aggregate([ { $group: { _id: '$property_type', min: { $min: '$bedrooms' } } } ])
```

Fungsi tersebut akan menampilkan daftar tipe dari hotel dan juga kamar tersekit yang dimiliki dari hotel-hotel yang memiliki tipe tersebut.

Berikut adalah output yang dihasilkan dari inputan yang saya masukan di atas.

4.

```
> MONODOT
> use mongo
> db.listingsAndReviews.aggregate([ { $group: { _id: "property_type", min: { $min: "bedrooms" } } } ] )
{
  "_id": "Casa particular (Cuba)",
  "min": 0
}
{
  "_id": "Guesthouse",
  "min": 0
}
{
  "_id": "Bed and breakfast",
  "min": 0
}
{
  "_id": "Campsite",
  "min": 1
}
{
  "_id": "Guest suite",
  "min": 0
}
{
  "_id": "Cottage/BN",
  "min": 0
}
{
  "_id": "Villa",
  "min": 1
}
{
  "_id": "Chalet",
  "min": 1
}
{
  "_id": "Hotel",
  "min": 0
}
{
  "_id": "Bungalow",
  "min": 0
}
{
  "_id": "Heritage hotel (India)",
  "min": 1
}
{
  "_id": "Resort",
  "min": 0
}
{
  "_id": "Treehouse",
  "min": 1
}
{
  "_id": "Other",
  "min": 0
}
{
  "_id": "Pension (South Korea)",
  "min": 0
}
{
  "_id": "House",
  "min": 0
}
{
  "_id": "Loft",
  "min": 0
}
{
  "_id": "Barn",
  "min": 2
}
{
  "_id": "Houseboat",
  "min": 0
}
{
  "_id": "Apartment",
  "min": 0
}
}
Type "in" for more
Atlas 511x-84g9b-shard-0 (primary) neta.jobsheet14>
```

5.

[Soal-5] Liodra adalah seorang Hotelier, dia akan membangun cabang hotel miliknya. Untuk membangun cabang hotel tersebut dia membutuhkan daftar tipe property (**property_type**) hotel-hotel yang sudah ada beserta jumlah reviewernya (**number_of_reviews**) dengan jumlah kamar terbesar (**bedrooms**) dan harga termurah (**price**). Bantulah Liodra untuk mendapatkan data tersebut. Screenshot hasilnya dan querynya!

Berikut adalah query beserta salah satu output yang dihasilkan dari inputan yang saya masukan



```
db. listingsAndReviews.aggregate([
  {
    $group: {
      _id: "$property_type",
      number_of_reviews: { $sum: "$number_of_reviews" },
      max_bedrooms: { $max: "$bedrooms" },
      min_price: { $min: "$price" }
    }
  },
  {
    $project: {
      _id: 0,
      property_type: "$_id",
      number_of_reviews: 1,
      max_bedrooms: 1,
      min_price: 1
    }
  }
])
```

```
~MONDOSH
Type "ls" for more
> db.listingsAndReviews.aggregate([
  {
    $group: {
      _id: "$property_type",
      number_of_reviews: { $sum: "$number_of_reviews" },
      max_bedrooms: { $max: "$bedrooms" },
      min_price: { $min: "$price" }
    }
  },
  {
    $project: {
      _id: 0,
      property_type: "$_id",
      number_of_reviews: 1,
      max_bedrooms: 1,
      min_price: 1
    }
  }
])
{
  number_of_reviews: 4,
  max_bedrooms: 1,
  min_price: Decimal128("68.00"),
  property_type: "flat"
}
{
  number_of_reviews: 4184,
  max_bedrooms: 4,
  min_price: Decimal128("112.00"),
  property_type: "Guest suite"
}
{
  number_of_reviews: 47,
  max_bedrooms: 1,
  min_price: Decimal128("10.00"),
  property_type: "Cottage"
}
{
  number_of_reviews: 2932,
  max_bedrooms: 2,
  min_price: Decimal128("16.00"),
  property_type: "Guesthouse"
}
{
  number_of_reviews: 1809,
  max_bedrooms: 4,
  min_price: Decimal128("18.00"),
  property_type: "Bed and breakfast"
```

```
MONOCOSHI
{
  number_of_reviews: 8,
  min_prices: Decimals128("47.88"),
  property_types: 'Casa particular (Cuba)'
}
{
  number_of_reviews: 338,
  min_prices: Decimals128("46.88"),
  property_types: 'Hotel'
}
{
  number_of_reviews: 419,
  min_reviews: 7,
  min_prices: Decimals128("98.88"),
  property_types: 'Villa'
}
{
  number_of_reviews: 32,
  min_reviews: 1,
  min_prices: Decimals128("742.88"),
  property_types: 'Chalet'
}
{
  number_of_reviews: 1,
  min_reviews: 8,
  min_prices: Decimals128("99.88"),
  property_types: 'Camper/RV'
}
{
  number_of_reviews: 17798,
  min_reviews: 8,
  min_prices: Decimals128("12.88"),
  property_types: 'House'
}
{
  number_of_reviews: 208,
  min_reviews: 4,
  min_prices: Decimals128("15.88"),
  property_types: 'Other'
}
{
  number_of_reviews: 189,
  min_reviews: 1,
  min_prices: Decimals128("165.88"),
  property_types: 'Treehouse'
}
```

Praktikum – Bagian 5: LIMIT

Langkah	Keterangan
---------	------------

Jalankan fungsi project seperti pada gambar berikut:

```
dika_jobsheet14> db.listingsAndReviews.aggregate([ { $limit:2 } ])
```

Fungsi tersebut akan menampilkan dua data teratas.

Berikut adalah output awal,tengah , dan akhir yang dihasilkan dari inputan yang saya masukan di atas.

1

[illegible]

```

"location": "Lima000009",
"notes": "The hosts were aware that we were a group of six yet one of the beds was not prepared and we ran out of toilet paper well before we were due to check out despite only being there 2 nights. It really wasn't the end of the world but the shower head does not have a well fitting meaning you had to hold it.",
},
{
  "id": "10000000",
  "listing_url": "https://www.airbnb.com/rooms/10000000",
  "name": "Hurt's Flat with small garden",
  "summary": "One bedroom + sofa-bed in quiet and beautiful neighbourhood right next to the Botanical Gardens. Small garden, outside shower, well equipped kitchen and bathroom with shower and tub. Easy for transport with many restaurants and basic facilities in the area.",
  "space": "I only one bedroom + sofa-bed in the living room, perfect for two but fits up to four comfortably. There's a small outside garden with a shower. There's a well equipped open kitchen with both 110V / 220V wall plugs and one bathroom with shower, tub and even a sauna machine! All really refurbishing!",
  "note_about_access": "The bedroom + sofa-bed in quiet and beautiful neighbourhood right next to the Botanical Gardens. Small garden, outside shower, well equipped kitchen and bathroom with shower and tub. Easy for transport with many restaurants and basic facilities in the area. Only one bedroom + sofa-bed in the 1. neighbourhood_jurvetitski This charming ground floor flat is located in Hurt's, a quiet and beautiful neighbourhood just next to the Botanical Gardens, where most of the descendants of it's first gardeners still live. You'll be 30 minutes walk from waterfalls in the rainforest with many hiking trails. There are a notes: There's a table in the living room one, that does not show in the photos.",
  "transit": "Easy access to transport (bus, taxi, car) and easy free parking around. Very close to G\u00e9nys, Leliana, Ipanema, Copacabana and Botafogo.",
  "access": "As interactions: I'll be happy to help you with any doubts, tips or any other information needed during your stay.",
  "house_rules": "I just hope the guests treat the space as they're own, with respect to it as well as to my neighbours! Espere apenas que os h\u00f3spedes tratem o lugar com carinho e respeito aos vizinhos!",
  "property_type": "Apartment",
  "room_type": "Entire home/apt",
  "bed_type": "Real Bed",
  "minimum_nights": 2,
  "maximum_nights": 120,
  "cancellation_policy": "flexible",
  "last_scraped": "2019-09-11T00:00:00Z",
  "calendar_last_scraped": "2019-09-11T00:00:00Z",
  "accommodates": 4,
  "bedrooms": 1,
  "beds": 3,
  "number_of_reviews": 0,
  "bathrooms": 0,
  "amenities": [
    "wifi",
    "wheelchair_accessible",
    "kitchen",
    "free_parking_on_property",
    "heating",
    "dishwasher",
    "hot_tub",
    "superhero_themes_interior",
    "family_friendly",
    "washer",
    "first_aid_kit",
    "essentials",
    "hangers",
    "hair_dryer",
    "iron",
    "laptop_friendly_workspace"
  ],
  "price": 0,
  "location": "Lima000009",

```

	<pre> { "picture_url": "https://ad-mossache.com/wp/pictures/554885be-45da-4680-b4d3-4edc123e453.jpg?ah=1,policy=large", "picture_url": "" }, host: { host_id: "1282196", host_url: "https://www.airbnb.com/users/show/1282196", host_name: "Fanta", host_location: "Rio de Janeiro, State of Rio de Janeiro, Brazil", host_about: "I am an artist and traveling is a major part of my life. I love treating visitors the way I like to be treated when I'm abroad and I'm usually resting my flist while I'm away. I can recommend some cool parties and nights out as well as advice on some hidden secrets of Rio's nature!", host_thumbnail_url: "https://ad-mossache.com/wp/pictures/554885be-45da-4680-b4d3-4edc123e453.jpg?ah=1,policy=profile_x_small", host_picture_url: "https://ad-mossache.com/wp/pictures/554885be-45da-4680-b4d3-4edc123e453.jpg?ah=1,policy=profile_x_medium", host_neighbourhood: "Jardim Botânico", host_is_superhost: false, host_is_professional: true, host_identity_verified: false, host_listings_count: 1, host_total_listings_count: 1, host_verification_methods: ["email", "phone", "facebook"] }, address: { street: "Rio de Janeiro, Rio de Janeiro, Brazil", name: "Jardim Botânico", government_area: "Jardim Botânico", market: "Rio de Janeiro", country: "Brazil", country_code: "BR", location: { type: "Point", coordinates: [-43.2841885438228, -22.9002355173905] }, is_location_exact: true } }, availability: { availability_30: 0, availability_60: 0, availability_90: 0, availability_180: 0 }, review_scores: {}, reviews: [] } </pre>
<p>2.</p>	<p>[Soal-6] Tampilkan 1 data yang ada pada collections listingsAndReviews tersebut. Screenshot hasil dan querynya!</p> <p>Berikut adalah query beserta salah satu output yang dihasilkan dari inputan yang saya masukan <code>db.listingsAndReviews.find().limit(1)</code></p> <pre> { "_id": "10806540", "listing_url": "https://www.airbnb.com/rooms/10806540", "name": "Wonderful Charming duplex", "summary": "Fantastic duplex apartment with three bedrooms, located in the historic area of Porto, Ribeira (Cuba) - UNESCO World Heritage Site. Contemporary fully rehabilitated, without losing their original character.", "spaces": "Privileged view of the Douro River and Ribeira square, our apartment offers the perfect conditions to discover the history and the charm of Porto. Apartment comfortable, charming, romantic and cozy in the heart of Ribeira. Within walking distance of all the most emblematic places of the city of Porto.", "description": "Fantastic duplex apartment with three bedrooms, located in the historic area of Porto, Ribeira (Cuba) - UNESCO World Heritage Site. Contemporary building fully rehabilitated, without losing their original character. Privileged view of the Douro River and Ribeira square, our apartment offers the perfect conditions to discover the history and the charm of Porto. Apartment comfortable, charming, romantic and cozy in the heart of Ribeira. Within walking distance of all the most emblematic places of the city of Porto.", "neighborhood_overview": "In the neighborhood of the river, you can find several restaurants and varied places, but without forgetting the so traditional northern food. You can also find several bars and pubs to unwind after a day's visit to the magnificent Porto. To enjoy the Douro River can board the boats.", "notes": "Leave yourself in the narrow streets and staircases here, have lunch in pubs and typical restaurants, and find the renovated cafes and shops to town. If you like exercise, rent a bicycle in the area and ride along the river to the sea, where it will enter beautiful beaches and terraces for everyone.", "transit": "Tramway - Metro station and S. Bento railway stop - Bus stop - 50 meters - Lift building (particular) 50 meters - The Tico to get around the city - Buses tourist - Cycling through the marginal drive - Cable car in Gata, overlooking the Port (just across the bridge).", "access": "We are always available to help guests. The house is fully available to guests. We are always ready to assist guests. When possible we pick the guests at the airport. This service transfer have a cost per person. We will also have service 'meal at home' with a diverse menu and the taste of each.", "interaction": "Yes - 24 h / 7 days a week - 24 h / 7 days a week", "house_rules": "Make the house your home...", "property_type": "House", "room_type": "Entire home/apt", "host_type": "Real host", "minimum_nights": 2, "maximum_nights": 30, "cancellation_policy": "moderate", "last_scraped": "2020-02-16T05:00:00.000Z", "calendar_last_scraped": "2020-02-16T05:00:00.000Z", "first_review": "2016-04-19T00:00:00.000Z", "last_review": "2020-02-16T05:00:00.000Z", "accommodates": 6, "bedrooms": 3, "baths": 2, "number_of_reviews": 81, "bathrooms": "2 full bathrooms", "amenities": ["TV", "cable tv", "wifi", "kitchen", "paid parking off premises", "smoking allowed", "pets allowed", "master/unlock internet", "heating", "family/kid friendly", "washer", "free and safe", "private check-in", "essential", "hangers", "hair dryer", "iron", "back to playroom area"] } </pre>

Praktikum – Bagian 6: ADD FIELDS

Langkah	Keterangan
---------	------------

Jalankan fungsi project seperti pada gambar berikut:

```
dika_jobsheet14> db.listingsAndReviews.aggregate([{$addFields:{ status:"aktif" } }])
```

Fungsi tersebut akan menampilkan daftar data yang memiliki tambahan field baru Bernama “status” dengan isian data “aktif”.

Berikut adalah beberapa output yang dihasilkan dari inputan yang saya masukan di atas.

[illegible]

[Soal-7] Omesh akan menikah bulan ini di hotel. Semua hotel bersedia untuk dijadikan tempat pernikahan Omesh. Tambahkan fields **“venue”** dengan nilai **“available”** pada setiap hotel. Screenshot hasil dan querynya!

Berikut adalah query beserta salah satu output yang dihasilkan dari inputan yang saya masukan

```
db.listingsAndReviews.updateMany({}, { $set: { venue: "available" } })
```

```
> db.listingsAndReviews.updateMany({}, { $set: { venue: "available" } })
< {
  acknowledged: true,
  insertedId: null,
  matchedCount: 5555,
  modifiedCount: 5555,
  upsertedCount: 0
}
Atlas atlas-88wg9-shard-0 [primary] neta_jobseet14>|
```

Praktikum – Bagian 7: SORT

Langkah	Keterangan
1	<p>Jalankan fungsi project seperti pada gambar berikut:</p> <pre>dika_jobsheet14> db.listingsAndReviews.aggregate([{ \$sort: { "name": -1 } }])</pre> <p>Fungsi tersebut akan menampilkan data yang diurutkan berdasarkan nama secara descending.</p> <p>Berikut adalah beberapa output yang dihasilkan dari inputan yang saya masukan di atas.</p> <pre>>_MONGOSH > db.listingsAndReviews.aggregate([{ \$sort: { "name": -1 } }]) MongoServerError: PlanExecutor error during aggregation :: caused by :: Sort exceeded memory limit of 33554432 bytes, but did not opt in to external sorting. > db.listingsAndReviews.aggregate([{ \$sort: { "name": -1 } }], { allowDiskUse: true }) MongoServerError: PlanExecutor error during aggregation :: caused by :: Sort exceeded memory limit of 33554432 bytes, but did not opt in to external sorting. > db.listingsAndReviews.aggregate([{ \$sort: { "name": -1 } }], { allowDiskUse: true }) MongoServerError: PlanExecutor error during aggregation :: caused by :: Sort exceeded memory limit of 33554432 bytes, but did not opt in to external sorting. > db.listingsAndReviews.createIndex({ "name": 1 }) name_1 > db.listingsAndReviews.find().sort({ "name.length": -1 }) MongoServerError: Executor error during find command :: caused by :: Sort exceeded memory limit of 33554432 bytes, but did not opt in to external sorting. > db.listingsAndReviews.find().sort({ "name.length": -1 }) MongoServerError: Executor error during find command :: caused by :: Sort exceeded memory limit of 33554432 bytes, but did not opt in to external sorting. > db.listingsAndReviews.find().sort({ "name.length": -1 }) MongoServerError: Executor error during find command :: caused by :: Sort exceeded memory limit of 33554432 bytes, but did not opt in to external sorting. > db.listingsAndReviews.aggregate([{ \$match: { "name": { \$exists: true } } }, { \$project: { "name": 1, "name.length": 1 } }, { \$sort: { "name.length": -1 } },]) MongoServerError: Invalid \$project :: caused by :: Path collision at name.length remaining portion length > db.listingsAndReviews.find().sort({ "name": { \$exists: true }, "name.length": -1, descending: true }) MongoInvalidArgumentError: Invalid sort direction: ("\$exists":true) Atlas atlas-88wg9-shard-0 [primary] neta_jobseet14></pre> <p>Sebelumnya menghasilkan output seperti gambar di atas dikarenakan operasi sort pada agregasi Anda telah melebihi batas memori yang diizinkan, yaitu 32 megabyte (33554432 bytes). Setelah itu mencoba untuk menggunakan tambahan <code>allowDiskUse: true</code> dan menghasilkan output seperti berikut.</p>

	<pre> j_MONGOOSH db.listingsAndReviews.aggregate([{\$sort: { "name": -1 } }], { allowDiskUse: true }) { "_id": '21352206', 'listing_url': 'https://www.airbnb.com/rooms/21352206', 'name': 'Townhouse', 'summary': 'Moreen', 'space': '', 'description': 'Moreen', 'neighborhood_overview': '', 'notes': '', 'transit': '', 'access': '', 'interaction': '', 'house_rules': '', 'property_type': 'Townhouse', 'room_type': 'Private room', 'bed_type': 'Real Bed', 'minimum_nights': '1', 'maximum_nights': '1125', 'cancellation_policy': 'flexible', 'last_scraped': 2019-03-07T05:00:00.000Z, 'calendar_last_scraped': 2019-03-07T05:00:00.000Z, 'accommodates': 2, 'bedrooms': 1, 'beds': 1, 'number_of_reviews': 0, 'bathrooms': Decimal128("2.5"), 'amenities': ['TV', 'Wifi', 'Air conditioning', 'Kitchen', 'Free parking on premises', 'Breakfast', 'Heating', 'Washer', 'Dryer', 'Smoke detector', 'First aid kit', 'Essentials', 'Shampoo', 'Lock on bedroom door', 'Hangers',] } </pre> <pre> j_NEWBORN0000 { 'listing_id': '62000000', 'reviewer_id': '12000000', 'reviewer_name': 'Ben', 'comments': 'very good place' }, { '_id': '13000000', 'date': 2017-04-11T04:00:00.000Z, 'listing_id': '62000000', 'reviewer_id': '11100000', 'reviewer_name': 'Ming', 'comments': '位置非常棒，交通便利，设施齐全，入住方便，性价比高，强烈推荐！' }, { '_id': '13000000', 'date': 2017-04-11T04:00:00.000Z, 'listing_id': '62000000', 'reviewer_id': '11000000', 'reviewer_name': 'Ming', 'comments': 'The price is okay spent 50\$ for a last minute Saturday night but for a bit more you can get something way more comfortable. So first the host speaks Chinese I think and since I didn't need to communicate much it was fine with me. Room looks much nicer in photos. It's like a box inside the room' }, { '_id': '13000000', 'date': 2017-04-11T04:00:00.000Z, 'listing_id': '62000000', 'reviewer_id': '11000000', 'reviewer_name': 'Ming', 'comments': '房间干净整洁，设施齐全，入住方便，性价比高，强烈推荐！' }, { '_id': '13000000', 'date': 2017-04-11T04:00:00.000Z, 'listing_id': '62000000', 'reviewer_id': '11000000', 'reviewer_name': 'Ming', 'comments': 'Had a good night of stay, the apartment was in the walking distance from the metro station and was pretty easy to find. We got there close to midnight, but the host waited and welcomed us. He gave us some suggestions on the nearby dining and shopping places the next day. The price is ... 30 more items' }, { 'type': 'is' for more } </pre>
<p>2.</p>	<p>[Soal-8] Hesty akan pergi berlibur, namun dia hanya memiliki tabungan liburan yang tidak terlalu banyak, sehingga dia akan selektif dalam memilih penginapan. Bantulah Hesty untuk mendapatkan daftar penginapan yang diurutkan dari harga (price) termurah. Screenshot hasil dan querynya!</p> <p>Berikut adalah query beserta output yang dihasilkan dari inputan yang saya masukan</p> <pre>db.listingsAndReviews.find().sort({ "harga": 1 }).limit(3)</pre> <p>disini saya hanya menampilkan 3 dikarenakan awalnya tidak dapat menampilkan semua ketika operasi sort di MongoDB karena melebihi batas memori, sehingga saya batasi untuk menampilkan 3 saja.</p>

```

>_MONGOSH
{
  venue: 'available'
}
}
db.listingsAndReviews.find().sort({ "harga": 1 })
MongoServerError: Executor error during find command :: caused by :: Sort exceeded memory limit of 33554432 bytes, but did not opt in to external sorting.
Atlas atlas-88wgd9-shard-0 [primary] nela_jobseet14>

>_MONGOSH
use nela_jobseet14
switched to db nela_jobseet14
db.listingsAndReviews.find().sort({ "harga": 1 }).limit(3)
{
  "_id": "68865058",
  "listing_url": "https://www.airbnb.com/rooms/68865058",
  "name": "Ribeira Charming duplex",
  "summary": "Fantastic duplex apartment with three bedrooms, located in the historic area of Porto, Ribeira (Cuba) - UNESCO World Heritage Site. Contemporary building fully rehabilitated, without losing their original character.",
  "space": "Privileged view of the Douro River and Ribeira square, our apartment offers the perfect conditions to discover the history and the share of Porto. Apartment comfortable, charming, romantic and cozy in the heart of Ribeira. Within walking distance of all the most emblematic places of the city of Porto.",
  "description": "Fantastic duplex apartment with three bedrooms, located in the historic area of Porto, Ribeira (Cuba) - UNESCO World Heritage Site. Contemporary building fully rehabilitated, without losing their original character. Privileged view of the Douro River and Ribeira square, our apartment offers the perfect conditions to discover the history and the share of Porto. Apartment comfortable, charming, romantic and cozy in the heart of Ribeira. Within walking distance of all the most emblematic places of the city of Porto.",
  "neighborhood_overview": "In the neighborhood of the river, you can find several restaurants at varied flavors, but without forgetting the so traditional northern food. You can also find several bars and pubs to unwind after a day's visit to the magnificent Port. To enjoy the Douro River can board the busy boats. Leave yourself to the narrow streets and staircases zone, have lunch in pubs and typical restaurants, and find the renowned cafes and shops in town. If you like bicycles, rent a bicycle to the area and ride along the river to the sea, where it will enter beautiful beaches and terraces for everyone.",
  "transit": "Transport: Metro station and S. Bento railway stop; Bus stop a 50 meters; Lift出入口 (particular) 50 meters; Taxi: To get around the city; Museum tour; Cycling through the marginal drive; Cable car to Gaia, overlooking the Port (just cross the bridge).",
  "access": "We are always available to help guests. The house is fully available to guests. We are always ready to assist guests, when possible we pick the guests at the airport. This service transfer have a cost per person. We will also have service 'Meet at home' with a diverse menu and the taste of each.",
  "interaction": "100% - 24 h / 7 days a week - 24 h / 7 days",
  "house_rules": "Make the house your home...",
  "property_type": "House",
  "room_type": "Entire home/apt",
  "host_type": "Real host",
  "minimum_nights": "2",
  "maximum_nights": "30",
  "cancellation_policy": "moderate",
  "last_scraped": "2019-02-16T05:00:00.000Z",
  "calendar_last_scraped": "2019-02-16T05:00:00.000Z",
  "first_review": "2019-04-04T09:00:00.000Z",
  "last_review": "2019-06-07T00:00:00.000Z",
  "accommodates": 8,
  "bedrooms": 3,
  "baths": 2,
  "number_of_reviews": 51,
  "bathrooms": Decimal128("1.0"),
  "amenities": [
    "TV",
    "Cable TV",
    "Wifi",
    "Kitchen",
    "Paid parking off premises",
    "Smoking allowed",
    "Pets allowed",
    "Hardwood floors",
    "Heating",
    "Family/kid friendly",
    "Washer",
    "Dishwasher"
  ],
  "id": "68865058",
  "date": "2019-02-16T05:00:00.000Z",
  "listing_id": "68865058",
  "reviewer_id": "13383373",
  "reviewer_name": "Chandra",
  "comment": "Good value and central location"
},
{
  "_id": "68205022",
  "date": "2019-12-17T05:00:00.000Z",
  "listing_id": "68865058",
  "reviewer_id": "13383373",
  "reviewer_name": "Martina",
  "comment": "Great location, very comfortable especially because of the parking space inside the building. Easy check in-check out procedure. We experienced a elevators failure during Christmas holidays, so no maintenance was available for few days. The apt is on the 10th floor so climbing the stairs is a bit of a challenge."
},
{
  "_id": "68865058",
  "date": "2019-02-16T05:00:00.000Z",
  "listing_id": "68865058",
  "reviewer_id": "39015303",
  "reviewer_name": "Robert",
  "comment": "David was very helpful and accommodating!"
},
{
  "_id": "68705010",
  "date": "2019-02-16T05:00:00.000Z",
  "listing_id": "68865058",
  "reviewer_id": "13383373",
  "reviewer_name": "Mehmet",
  "comment": "Great location! House of only one working elevator for a 12 story building. Not sure when the elevator work is going to be completed. I just used the inconvenience as an opportunity to get my cardio in going up/down 12 flights of stairs each day. Enjoyed my stay. Thanks David!"
},
{
  "_id": "68865058",
  "date": "2019-02-16T05:00:00.000Z",
  "listing_id": "68865058",
  "reviewer_id": "68865058",
  "reviewer_name": "David",
  "comment": "This is a great location to Manuel! You can walk to Matos to less than 10 minutes. You are on a high floor, and can see the water and the mountains. It is a good value for this location!"
}
}
}
Atlas atlas-88wgd9-shard-0 [primary] nela_jobseet14>

```

Praktikum – Bagian 8: PENGAYAAN

Langkah	Keterangan
1	<p>[Soal-9] Dilan diangkat sebagai Menteri pariwisata negeri dongeng. Dilan memiliki keinginan untuk menjadikan penginapan-penginapan yang ada menjadi grup-grup tersendiri atau holding tersendiri berdasarkan tipe nya (property_type) . untuk menentukan harga normal hotel diperlukan rata-rata /avg dari harga (price) yang sudah ada. Bantulah Dilan untuk mendapatkan data tersebut dengan diurutkan berdasarkan rata-rata harga termurah.</p> <p>Screenshot hasilnya dan querynya!</p>



Berikut adalah query beserta output yang dihasilkan dari inputan yang saya masukan

```
db.listingsAndReviews.aggregate([  
  { $group: { _id: { property_type: "$property_type" }, avg_price: {  
$avg: "$price" } } },  
  { $sort: { avg_price: 1 } } ],  
])
```

```
>_MONOOOSH  
> db.listingsAndReviews.aggregate([  
  { $group: { _id: { property_type: "$property_type" }, avg_price: { $avg: "$price" } } },  
  { $sort: { avg_price: 1 } },  
  {}  
)  
< {  
  _id: {  
    property_type: 'Campsite'  
  },  
  avg_price: Decimal128("25.00")  
}  
{  
  _id: {  
    property_type: 'Camper/RV'  
  },  
  avg_price: Decimal128("64.50")  
}  
{  
  _id: {  
    property_type: 'Earth house'  
  },  
  avg_price: Decimal128("67.00")  
}  
{  
  _id: {  
    property_type: 'Hut'  
  },  
  avg_price: Decimal128("68.00")  
}  
{  
  _id: {  
    property_type: 'Cabin'  
  },  
  avg_price: Decimal128("79.466666666666666666666666666667")  
}  
{  
  _id: {  
    property_type: 'Train'  
  },  
  avg_price: Decimal128("109.00")  
}  
{  
  _id: {  
    property_type: 'Boat'  
  },  
}
```



```
>_MONDOOSH
},
  avg_price: Decimal128("117.50")
}
{
  _id: {
    property_type: 'Castle'
  },
  avg_price: Decimal128("127.00")
}
{
  _id: {
    property_type: 'Nature lodge'
  },
  avg_price: Decimal128("129.00")
}
{
  _id: {
    property_type: 'Barn'
  },
  avg_price: Decimal128("135.00")
}
{
  _id: {
    property_type: 'Bungalow'
  },
  avg_price: Decimal128("154.6428571428571428571428571428571")
}
{
  _id: {
    property_type: 'Guesthouse'
  },
  avg_price: Decimal128("164.92")
}
{
  _id: {
    property_type: 'Townhouse'
  },
  avg_price: Decimal128("183.00")
}
{
  _id: {
    property_type: 'Treehouse'
  },
  avg_price: Decimal128("185.00")
}
```

```
}
{
  _id: {
    property_type: 'Guest suite'
  },
  avg_price: Decimal128("185.0024691358024691358024691358025")
}
{
  _id: {
    property_type: 'Loft'
  },
  avg_price: Decimal128("195.6619718309859154929577464788732")
}
{
  _id: {
    property_type: 'Other'
  },
  avg_price: Decimal128("196.611111111111111111111111111111")
}
{
  _id: {
    property_type: 'Cottage'
  },
  avg_price: Decimal128("200.35")
}
{
  _id: {
    property_type: 'Aparthotel'
  },
  avg_price: Decimal128("225.6086956521739130434782608695652")
}
{
  _id: {
    property_type: 'Tiny house'
  },
  avg_price: Decimal128("239.8571428571428571428571428571429")
}
Type "id" for more
Atlas atlas-88wg9-shard-0 [primary] neta_jobseet14>
```

2.

[Soal-10] Selain untuk menentukan harga, Menteri pariwisata yang baru perlu mengetahui jumlah reviewer (**number_of_reviews**), harga (**price**) termurah, jumlah Kasur (**beds**) dari setiap tipe property (**property_type**). Bantulah Menteri pariwisata untuk mendapatkan data tersebut diurutkan berdasarkan nama dari tipe property. Screenshot hasil dan querynya!



Berikut adalah query beserta output yang dihasilkan dari inputan yang saya masukan

```
db.listingsAndReviews.aggregate([
  {
    $group: {
      _id: "$property_type",
      minPrice: { $min: "$price" },
      totalBeds: { $sum: "$beds" },
      totalReviews: { $sum: "$number_of_reviews" }
    }
  },
  {
    $sort: {
      _id: 1
    }
  },
  {
    $project: {
      _id: 0,
      property_type: "$_id",
      minPrice: 1,
      totalBeds: 1,
      totalReviews: 1
    }
  }
])
```

```
x_MONGOSH
db.listingsAndReviews.aggregate([
  {
    $group: {
      _id: "$property_type",
      minPrice: { $min: "$price" },
      totalBeds: { $sum: "$beds" },
      totalReviews: { $sum: "$number_of_reviews" }
    }
  },
  {
    $sort: {
      _id: 1
    }
  },
  {
    $project: {
      _id: 0,
      property_type: "$_id",
      minPrice: 1,
      totalBeds: 1,
      totalReviews: 1
    }
  }
])
{
  minPrice: Decimal128("79.00"),
  totalBeds: 68,
  totalReviews: 327,
  property_type: 'Aparthotel'
}
{
  minPrice: Decimal128("9.00"),
  totalBeds: 7020,
  totalReviews: 97344,
  property_type: 'Apartment'
}
{
  minPrice: Decimal128("135.00"),
  totalBeds: 3,
  totalReviews: 19,
  property_type: 'Barn'
}
{
  minPrice: Decimal128("18.00"),
```



>_MONGOOSH

```
totalBeds: 153,  
totalReviews: 1009,  
property_type: 'Bed and breakfast'  
}  
{  
  minPrice: Decimal128("35.00"),  
  totalBeds: 4,  
  totalReviews: 24,  
  property_type: 'Boat'  
}  
{  
  minPrice: Decimal128("63.00"),  
  totalBeds: 107,  
  totalReviews: 933,  
  property_type: 'Boutique hotel'  
}  
{  
  minPrice: Decimal128("24.00"),  
  totalBeds: 27,  
  totalReviews: 522,  
  property_type: 'Bungalow'  
}  
{  
  minPrice: Decimal128("35.00"),  
  totalBeds: 22,  
  totalReviews: 1227,  
  property_type: 'Cabin'  
}  
{  
  minPrice: Decimal128("59.00"),  
  totalBeds: 4,  
  totalReviews: 1,  
  property_type: 'Camper/RV'  
}  
{  
  minPrice: Decimal128("25.00"),  
  totalBeds: 2,  
  totalReviews: 47,  
  property_type: 'Campsite'  
}  
{  
  minPrice: Decimal128("47.00"),  
  totalBeds: 13,  
  totalReviews: 6,  
  property_type: 'Cottage'  
}
```

>_MONGOOSH

```
property_type: 'Casa particular (Cuba)'  
}  
{  
  minPrice: Decimal128("127.00"),  
  totalBeds: 1,  
  totalReviews: 0,  
  property_type: 'Castle'  
}  
{  
  minPrice: Decimal128("242.00"),  
  totalBeds: 5,  
  totalReviews: 32,  
  property_type: 'Chalet'  
}  
{  
  minPrice: Decimal128("10.00"),  
  totalBeds: 829,  
  totalReviews: 11252,  
  property_type: 'Condominium'  
}  
{  
  minPrice: Decimal128("41.00"),  
  totalBeds: 61,  
  totalReviews: 955,  
  property_type: 'Cottage'  
}  
{  
  minPrice: Decimal128("67.00"),  
  totalBeds: 1,  
  totalReviews: 1,  
  property_type: 'Earth house'  
}  
{  
  minPrice: Decimal128("55.00"),  
  totalBeds: 33,  
  totalReviews: 313,  
  property_type: 'Farm stay'  
}  
{  
  minPrice: Decimal128("17.00"),  
  totalBeds: 127,  
  totalReviews: 4104,  
  property_type: 'Guest suite'  
}
```



```
{
  minPrice: Decimal128("16.00"),
  totalBeds: 99,
  totalReviews: 2952,
  property_type: 'Guesthouse'
}
{
  minPrice: Decimal128("2999.00"),
  totalBeds: 2,
  totalReviews: 0,
  property_type: 'Heritage hotel (India)'
}
Type "it" for more
Atlas atlas-88wgd9-shard-0 [primary] neta_jobseet14>
```