Project 2 sample document

March 7, 2025

```python
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## March 7, 2025
# Sample Document
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```python
from datetime import datetime

from bson import ObjectId
from pymongo import MongoClient
from pymongo.errors import ServerSelectionTimeoutError


uri = 'mongodb+srv://andersonau:AAunrnidaerson1!@dse6210-sql-nosql.wrnvx.
 ↪mongodb.net/?retryWrites=true&w=majority&appName=DSE6210-SQL-NoSQL'
client = MongoClient(uri)

try:
    client = MongoClient(uri)
    db = client['project2']
    airlines_collection = db['airlines']
    print(f'Connection successful!, database = {db} and collection = ␣
 ↪{airlines_collection}')
except ServerSelectionTimeoutError as e:
    print(f"Error connecting to MongoDB: {e}")

sample_doc = {
    '_id': ObjectId(),
    'passenger': {
        'passenger_id': 9754345678,
        'first_name': 'Walter',
        'last_name': 'White',
        'phone_number': '+1-678-543-2109',
        'email_address': 'walter.white@gmail.com',
        'address': {
          'address_lines' : '678 Passenger Way',
          'city' : 'Atlanta',
          'state' : 'GA',
            'country': 'USA'
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    },
        'other_passenger_details' :{
            'frequent_flyer': True,
            'level': 'Executive'
        }
},
    'reservations': [
        {
            'agent': {
                'agent_id': 2345,
                'agent_name': 'QuickTravel',
                'agent_details': 'Online booking'
            },
            'reservation_id': 9876545678,
            'date_reservation_made': datetime(2025,3, 7),
            'number_in_party': 8,
            'reservation_status': {
                'status_code': 'UNCONF',
                'description': 'unconfirmed'
            },
            'ticket_type':{
                'type_code':'NONREF',
                'description': 'Non-Refundable'
            },
            'ticket_class':{
                'class_code':'F',
                'description':'First Class'
            },
            'payments': [
                {
                    'payment_id': 933652,
                    'payment_status': {
                        'status_code': 'UNPAID',
                        'description': 'Payment unsuccessful'
                    },
                    'payment_date': datetime(2025, 3, 7),
                    'payment_amount': 987654.76
                }
            ],
            'itinerary_legs': [
                {
                    'leg_id': 999,
                    'flight_number': 'B613',
                    'origin_airport': {
                        'airport_code' : 'LAX',
                        'airport_name' : 'Los Angeles International Airport',
                        'airport_location': 'Los Angeles, CA',
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                    'other_details': {
                        'runways': 12,
                        'timezone': 'PST',
                        'terminals': 28
                    }
                },
                'destination_airport': {
                    'airport_code' : 'BOS',
                    'airport_name' : 'General Edward Lawrence Logan␣
  ↪International Airport',
                    'airport_location': 'Boston, MA',
                    'other_details':{
                        'runways': 14,
                        'timezone': 'EST',
                        'terminals': 30
                    }
                },
                'departure_date_time': datetime(2025,3,5,7,5),
                'arrival_date_time':datetime(2025,3,6,10,0),
                'actual_departure_time': datetime(2025,3,5,7,30),
                'actual_arrival_time':  datetime(2025, 3,6, 12, 0),
            }
        ],
        'flight_cost': {
            'flight_number': 'B613',
                'aircraft_type_code' : 'Cessna V',
                'valid_from_date' : datetime(2025, 2,3),
                'valid_to_date' : datetime(2025,2,17),
                'flight_cost': 19723.53
        },
        'ref_calendar':{
            'day_date': datetime(2025,3,6),
            'day_number': 65,
            'business_day_yn': 'Yes'
        }
    }
  ]
}
```

Connection successful!, database = Database(MongoClient(host=['dse6210-sql-nosql-shard-00-02.wrnvx.mongodb.net:27017', 'dse6210-sql-nosql-shard-00-01.wrnvx.mongodb.net:27017', 'dse6210-sql-nosql-shard-00-00.wrnvx.mongodb.net:27017'], document_class=dict, tz_aware=False, connect=True, retrywrites=True, w='majority', appname='DSE6210-SQL-NoSQL', authsource='admin', replicaset='atlas-xh6ykd-shard-0', tls=True), 'project2') and collection = Collection(Database(MongoClient(host=['dse6210-sql-nosql-shard-00-02.wrnvx.mongodb.net:27017', 'dse6210-sql-nosql-shard-00-01.wrnvx.mongodb.net:27017', 'dse6210-sql-nosql-

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shard-00-00.wrnvx.mongodb.net:27017'], document_class=dict, tz_aware=False,
connect=True, retrywrites=True, w='majority', appname='DSE6210-SQL-NoSQL',
authsource='admin', replicaset='atlas-xh6ykd-shard-0', tls=True), 'project2'),
'airlines')
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[6]:
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airline_result = airlines_collection.insert_one(sample_doc)
print(f'Document successfully inserted with the following ID: {airline_result.
 ↪inserted_id}')


for document in airlines_collection.find():
    print(document)
```

```
Document successfully inserted with the following ID: 67cb70c389e70e367a4889df
{'_id': ObjectId('67ca2de193d7690003b14c9b'), 'passenger': {'passenger_id':
9754345678, 'first_name': 'Walter', 'last_name': 'White', 'phone_number':
'+1-678-543-2109', 'email_address': 'walter.white@gmail.com', 'address':
{'address_lines': '678 Passenger Way', 'city': 'Atlanta', 'state': 'GA',
'country': 'USA'}, 'other_passenger_details': {'frequent_flyer': True, 'level':
'Executive'}}, 'reservations': [{'agent': {'agent_id': 2345, 'agent_name':
'QuickTravel', 'agent_details': 'Online booking'}, 'reservation_id': 9876545678,
'date_reservation_made': datetime.datetime(2025, 3, 7, 0, 0), 'number_in_party':
8, 'reservation_status': {'status_code': 'UNCONF', 'description':
'unconfirmed'}, 'ticket_type': {'type_code': 'NONREF', 'description': 'Non-
Refundable'}, 'ticket_class': {'class_code': 'F', 'description': 'First Class'},
'payments': [{'payment_id': 933652, 'payment_status': {'status_code': 'UNPAID',
'description': 'Payment unsuccessful'}, 'payment_date': datetime.datetime(2025,
3, 7, 0, 0), 'payment_amount': 987654.76}], 'itinerary_legs': [{'leg_id': 999,
'flight_number': 'B613', 'origin_airport': {'airport_code': 'LAX',
'airport_name': 'Los Angeles International Airport', 'airport_location': 'Los
Angeles, CA', 'other_details': {'runways': 12, 'timezone': 'PST', 'terminals':
28}}, 'destination_airport': {'airport_code': 'BOS', 'airport_name': 'General
Edward Lawrence Logan International Airport', 'airport_location': 'Boston, MA',
'other_details': {'runways': 14, 'timezone': 'EST', 'terminals': 30}},
'departure_date_time': datetime.datetime(2025, 3, 5, 7, 5), 'arrival_date_time':
datetime.datetime(2025, 3, 6, 10, 0), 'actual_departure_time':
datetime.datetime(2025, 3, 5, 7, 30), 'actual_arrival_time':
datetime.datetime(2025, 3, 6, 12, 0)}], 'flight_cost': {'flight_number': 'B613',
'aircraft_type_code': 'Cessna V', 'valid_from_date': datetime.datetime(2025, 2,
3, 0, 0), 'valid_to_date': datetime.datetime(2025, 2, 17, 0, 0), 'flight_cost':
19723.53}, 'ref_calendar': {'day_date': datetime.datetime(2025, 3, 6, 0, 0),
'day_number': 65, 'business_day_yn': 'Yes'}}]}
{'_id': ObjectId('67cb701d4f803ee00ab3838f'), 'passenger': {'passenger_id':
9754345678, 'first_name': 'Walter', 'last_name': 'White', 'phone_number':
'+1-678-543-2109', 'email_address': 'walter.white@gmail.com', 'address':
{'address_lines': '678 Passenger Way', 'city': 'Atlanta', 'state': 'GA',
'country': 'USA'}, 'other_passenger_details': {'frequent_flyer': True, 'level':
'Executive'}}, 'reservations': [{'agent': {'agent_id': 2345, 'agent_name':
'QuickTravel', 'agent_details': 'Online booking'}, 'reservation_id': 9876545678,
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'date_reservation_made': datetime.datetime(2025, 3, 7, 0, 0), 'number_in_party': 8, 'reservation_status': {'status_code': 'UNCONF', 'description': 'unconfirmed'}, 'ticket_type': {'type_code': 'NONREF', 'description': 'Non-Refundable'}, 'ticket_class': {'class_code': 'F', 'description': 'First Class'}, 'payments': [{'payment_id': 933652, 'payment_status': {'status_code': 'UNPAID', 'description': 'Payment unsuccessful'}, 'payment_date': datetime.datetime(2025, 3, 7, 0, 0), 'payment_amount': 987654.76}], 'itinerary_legs': [{'leg_id': 999, 'flight_number': 'B613', 'origin_airport': {'airport_code': 'LAX', 'airport_name': 'Los Angeles International Airport', 'airport_location': 'Los Angeles, CA', 'other_details': {'runways': 12, 'timezone': 'PST', 'terminals': 28}}, 'destination_airport': {'airport_code': 'BOS', 'airport_name': 'General Edward Lawrence Logan International Airport', 'airport_location': 'Boston, MA', 'other_details': {'runways': 14, 'timezone': 'EST', 'terminals': 30}}, 'departure_date_time': datetime.datetime(2025, 3, 5, 7, 5), 'arrival_date_time': datetime.datetime(2025, 3, 6, 10, 0), 'actual_departure_time': datetime.datetime(2025, 3, 5, 7, 30), 'actual_arrival_time': datetime.datetime(2025, 3, 6, 12, 0)}], 'flight_cost': {'flight_number': 'B613', 'aircraft_type_code': 'Cessna V', 'valid_from_date': datetime.datetime(2025, 2, 3, 0, 0), 'valid_to_date': datetime.datetime(2025, 2, 17, 0, 0), 'flight_cost': 19723.53}, 'ref_calendar': {'day_date': datetime.datetime(2025, 3, 6, 0, 0), 'day_number': 65, 'business_day_yn': 'Yes'}}]]}
{'_id': ObjectId('67cb70c389e70e367a4889df'), 'passenger': {'passenger_id': 9754345678, 'first_name': 'Walter', 'last_name': 'White', 'phone_number': '+1-678-543-2109', 'email_address': 'walter.white@gmail.com', 'address': {'address_lines': '678 Passenger Way', 'city': 'Atlanta', 'state': 'GA', 'country': 'USA'}, 'other_passenger_details': {'frequent_flyer': True, 'level': 'Executive'}}, 'reservations': [{'agent': {'agent_id': 2345, 'agent_name': 'QuickTravel', 'agent_details': 'Online booking'}, 'reservation_id': 9876545678, 'date_reservation_made': datetime.datetime(2025, 3, 7, 0, 0), 'number_in_party': 8, 'reservation_status': {'status_code': 'UNCONF', 'description': 'unconfirmed'}, 'ticket_type': {'type_code': 'NONREF', 'description': 'Non-Refundable'}, 'ticket_class': {'class_code': 'F', 'description': 'First Class'}, 'payments': [{'payment_id': 933652, 'payment_status': {'status_code': 'UNPAID', 'description': 'Payment unsuccessful'}, 'payment_date': datetime.datetime(2025, 3, 7, 0, 0), 'payment_amount': 987654.76}], 'itinerary_legs': [{'leg_id': 999, 'flight_number': 'B613', 'origin_airport': {'airport_code': 'LAX', 'airport_name': 'Los Angeles International Airport', 'airport_location': 'Los Angeles, CA', 'other_details': {'runways': 12, 'timezone': 'PST', 'terminals': 28}}, 'destination_airport': {'airport_code': 'BOS', 'airport_name': 'General Edward Lawrence Logan International Airport', 'airport_location': 'Boston, MA', 'other_details': {'runways': 14, 'timezone': 'EST', 'terminals': 30}}, 'departure_date_time': datetime.datetime(2025, 3, 5, 7, 5), 'arrival_date_time': datetime.datetime(2025, 3, 6, 10, 0), 'actual_departure_time': datetime.datetime(2025, 3, 5, 7, 30), 'actual_arrival_time': datetime.datetime(2025, 3, 6, 12, 0)}], 'flight_cost': {'flight_number': 'B613', 'aircraft_type_code': 'Cessna V', 'valid_from_date': datetime.datetime(2025, 2, 3, 0, 0), 'valid_to_date': datetime.datetime(2025, 2, 17, 0, 0), 'flight_cost': 19723.53}, 'ref_calendar': {'day_date': datetime.datetime(2025, 3, 6, 0, 0),

'day_number': 65, 'business_day_yn': 'Yes'}}]}

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