Problem 2 and 3:


```sql
CREATE EXTERNAL TABLE IF NOT EXISTS `crime`.`chicago_crimes1` ( `id` string, `case_number` string, `occurred_at` string, `block` string, `iucr` string, `primary_type`
  string, `description` string, `location_description` string, `arrest` string, `domestic` string, `beat` string, `district` string, `ward` string, `community_area`
  string, `fbi_code` string, `x_coordinate` string, `y_coordinate` string, `year` string, `updated_on` string, `latitude` string, `longitude` string, `location`
  string
)
ROW FORMAT SERDE 'org.apache.hadoop.hive.serde2.OpenCSVSerde' WITH SERDEPROPERTIES ( 'escapeChar'='\\', 'separatorChar'=',') LOCATION 's3://bigdata-dzf-2/bigdata_hw/'
TBLPROPERTIES ( 'has_encrypted_data'='false', 'skip.header.line.count'='1')
)
```

SQL   Ln 1, Col 1

Run again   Explain ⧉   Cancel   Clear   Create ▼   ⬤ Reuse query results
                                                                              *Athena engine version 3 only

Query results   Query stats

⊘ Completed   Time in queue: 47 ms   Run time: 273 ms   Data scanned: -

Query successful.

Problem 4:

Min Date


```sql
select min(occurred_at) from chicago_crimes;
```

SQL   Ln 1, Col 38

Run again   Explain ⧉   Cancel   Clear   Create ▼   ⬤ Reuse query results
                                                                              *Athena engine version 3 only

Query results   Query stats

⊘ Completed   Time in queue: 99 ms   Run time: 1.081 sec   Data scanned: 1.70 GB

Results (1)   📋 Copy   Download results

🔍 Search rows   ‹ 1 › ⚙

# ▽	_col0
1	01/01/2001 01:00:00 AM

```
1  SELECT DISTINCT primary_type FROM chicago_crimes
2  where occurred_at = (select min(occurred_at) from chicago_crimes);
```

SQL   Ln 1, Col 17   ⊒ ▦ ⚙

Run again   Explain ⧉   Cancel   Clear   Create ▾   ◯ Reuse query results
                                                                    *Athena engine version 3 only

Query results   Query stats

⊘ Completed   Time in queue: **125 ms**   Run time: **1.943 sec**   Data scanned: **3.40 GB**

Results (10)   ⧉ Copy   Download results

🔍 Search rows   ‹ **1** ›   ⚙

# ▽	primary_type ▽
1	BATTERY
2	DECEPTIVE PRACTICE
3	OFFENSE INVOLVING CHILDREN
4	ASSAULT
5	CRIM SEXUAL ASSAULT
6	CRIMINAL DAMAGE
7	WEAPONS VIOLATION
8	OTHER OFFENSE
9	SEX OFFENSE
10	THEFT

Max Date

```
1  select max(occurred_at) from chicago_crimes;
```

SQL   Ln 1, Col 11   ⊒ ▦ ⚙

Run again   Explain ⧉   Cancel   Clear   Create ▾   ◯ Reuse query results
                                                                    *Athena engine version 3 only

Query results   Query stats

⊘ Completed   Time in queue: **121 ms**   Run time: **997 ms**   Data scanned: **1.70 GB**

Results (1)   ⧉ Copy   Download results

🔍 Search rows   ‹ **1** ›   ⚙

# ▽	_col0 ▽
1	12/31/2022 12:59:00 PM

```
1  SELECT DISTINCT primary_type FROM chicago_crimes
2  where occurred_at = (select max(occurred_at) from chicago_crimes);
```

SQL   Ln 2, Col 32   ⊒ ▦ ⚙

Run again   Explain ⧉   Cancel   Clear   Create ▾   ◯ Reuse query results
                                                                    *Athena engine version 3 only

Query results   Query stats

⊘ Completed   Time in queue: **97 ms**   Run time: **1.733 sec**   Data scanned: **3.40 GB**

Results (1)   ⧉ Copy   Download results

🔍 Search rows   ‹ **1** ›   ⚙

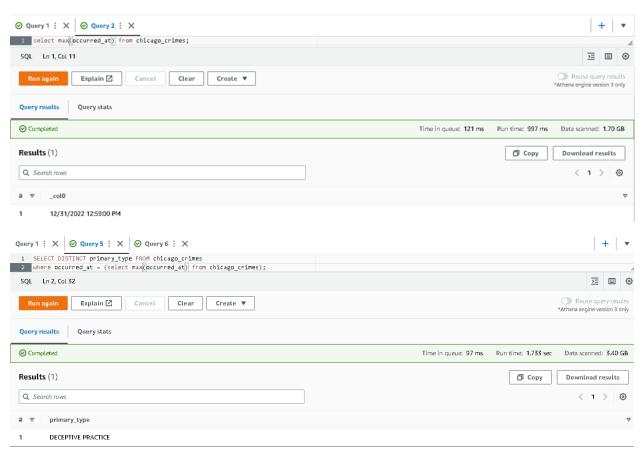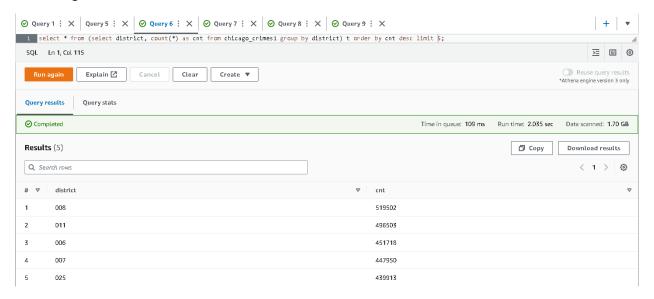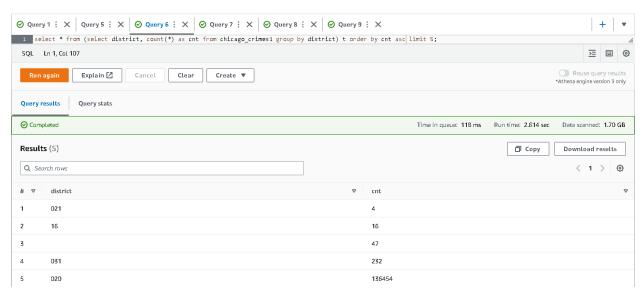| # ▽	primary_type ▽
1	DECEPTIVE PRACTICE

Add the primary_type

Problem 7

Most dangerous

Least dangerous

I made a mistake when imported the data into table.

Problem 8

```
1  select sum(cnt)/12 from (select date_format(date_parse(SUBSTRING(occurred_at, 1, 10),'%m/%d/%Y'),'%Y-%m-%d') as time, count(*) as cnt from chicago_crimes1
2  where primary_type = 'ASSAULT'
3  and date_format(date_parse(SUBSTRING(occurred_at, 1, 10),'%m/%d/%Y'),'%Y-%m-%d') >= '2021-01-01' and date_format(date_parse(SUBSTRING(occurred_at, 1, 10),'%m/%d/%Y'
   ),'%Y-%m-%d') <= '2021-12-31'
4  group by date_format(date_parse(SUBSTRING(occurred_at, 1, 10),'%m/%d/%Y'),'%Y-%m-%d'));
```

SQL   Ln 1, Col 19   ⊒≣ ▦ ⚙

Run again   Explain ⧉   Cancel   Clear   Create ▾   ⚪ Reuse query results
                                                                                         *Athena engine version 3 only

Query results   Query stats

⊘ Completed   Time in queue: 114 ms   Run time: 2.532 sec   Data scanned: 1.70 GB

Results (1)   ⧉ Copy   Download results

🔍 Search rows   ‹ 1 ›   ⚙

# ▽	_col0
1	1694

```
1  select sum(cnt)/12 from (select date_format(date_parse(SUBSTRING(occurred_at, 1, 10),'%m/%d/%Y'),'%Y-%m-%d') as time, count(*) as cnt from chicago_crimes1
2  where primary_type = 'ASSAULT'
3  and date_format(date_parse(SUBSTRING(occurred_at, 1, 10),'%m/%d/%Y'),'%Y-%m-%d') >= '2020-01-01' and date_format(date_parse(SUBSTRING(occurred_at, 1, 10),'%m/%d/%Y'
   ),'%Y-%m-%d') <= '2020-12-31'
4  group by date_format(date_parse(SUBSTRING(occurred_at, 1, 10),'%m/%d/%Y'),'%Y-%m-%d'));
```

SQL   Ln 3, Col 187   ⊒≣ ▦ ⚙

Run again   Explain ⧉   Cancel   Clear   Create ▾   ⚪ Reuse query results
                                                                                         *Athena engine version 3 only

Query results   Query stats

⊘ Completed   Time in queue: 117 ms   Run time: 2.835 sec   Data scanned: 1.70 GB

Results (1)   ⧉ Copy   Download results

🔍 Search rows   ‹ 1 ›   ⚙

# ▽	_col0
1	1521

The average crime of assault in 2021 increases compared to 2020. I used the wrong denominator in my previous answer.