**USA CRIME ANALYSIS**

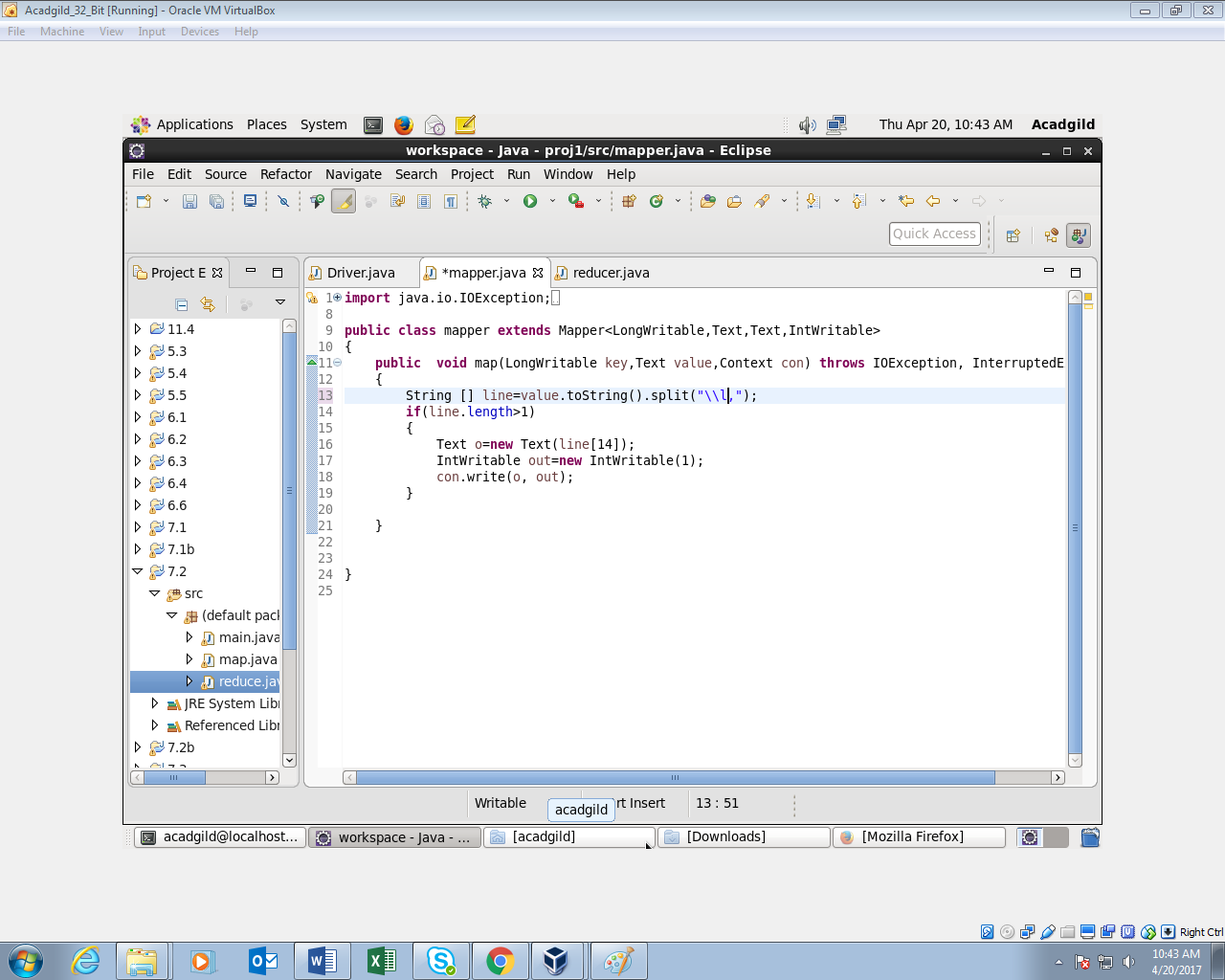
**USING MAP REDUCE**

**DRIVER CLASS**

**QN1 1. Write a mapreduce and pig program to calculate the number of cases investigated under each FBI code**

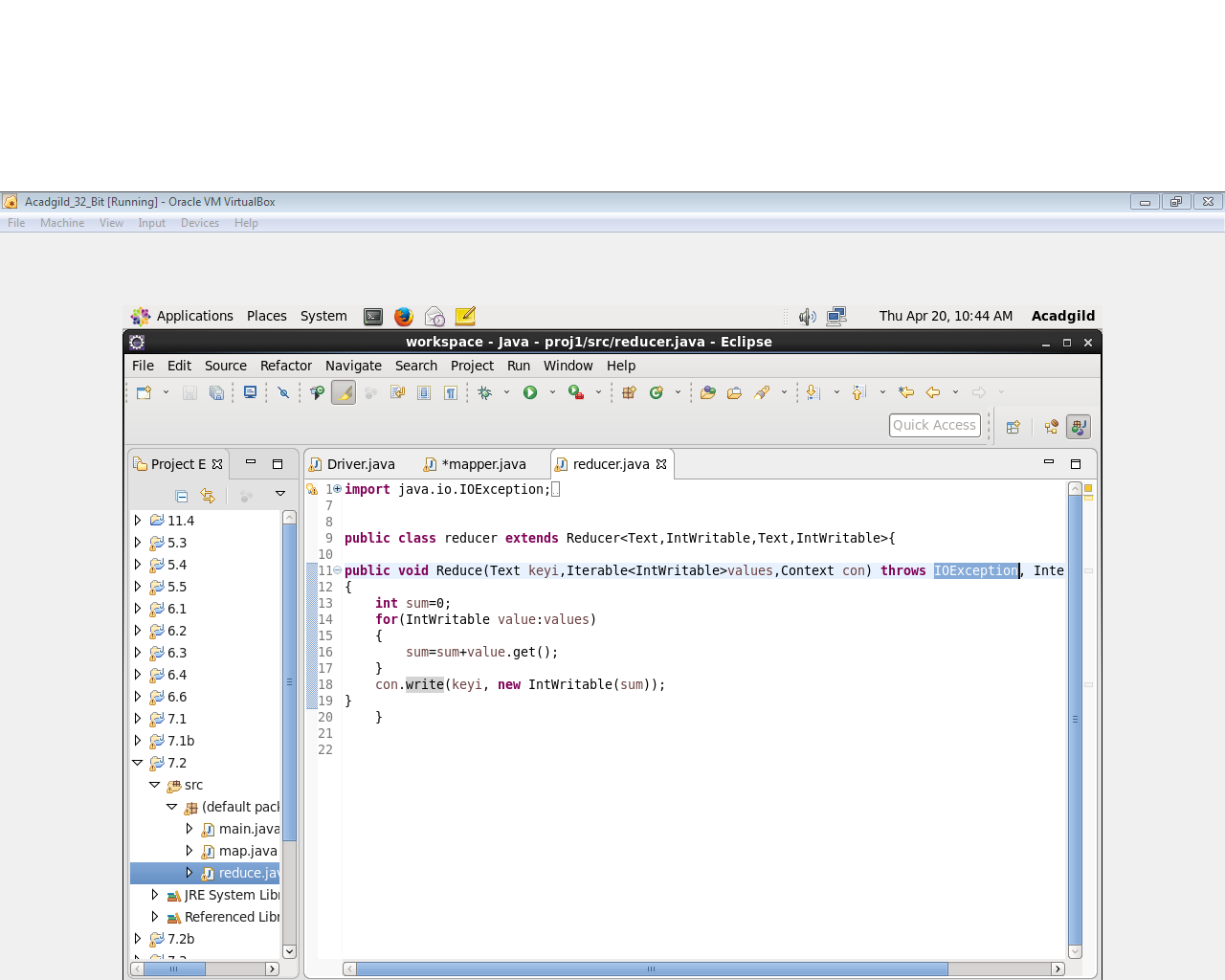
**MAPPER CLASS**

**LOGIC : SENDING THE FBI CODE AS KEY AND A COUNT OF 1 FOR EACH COMPLAINT**

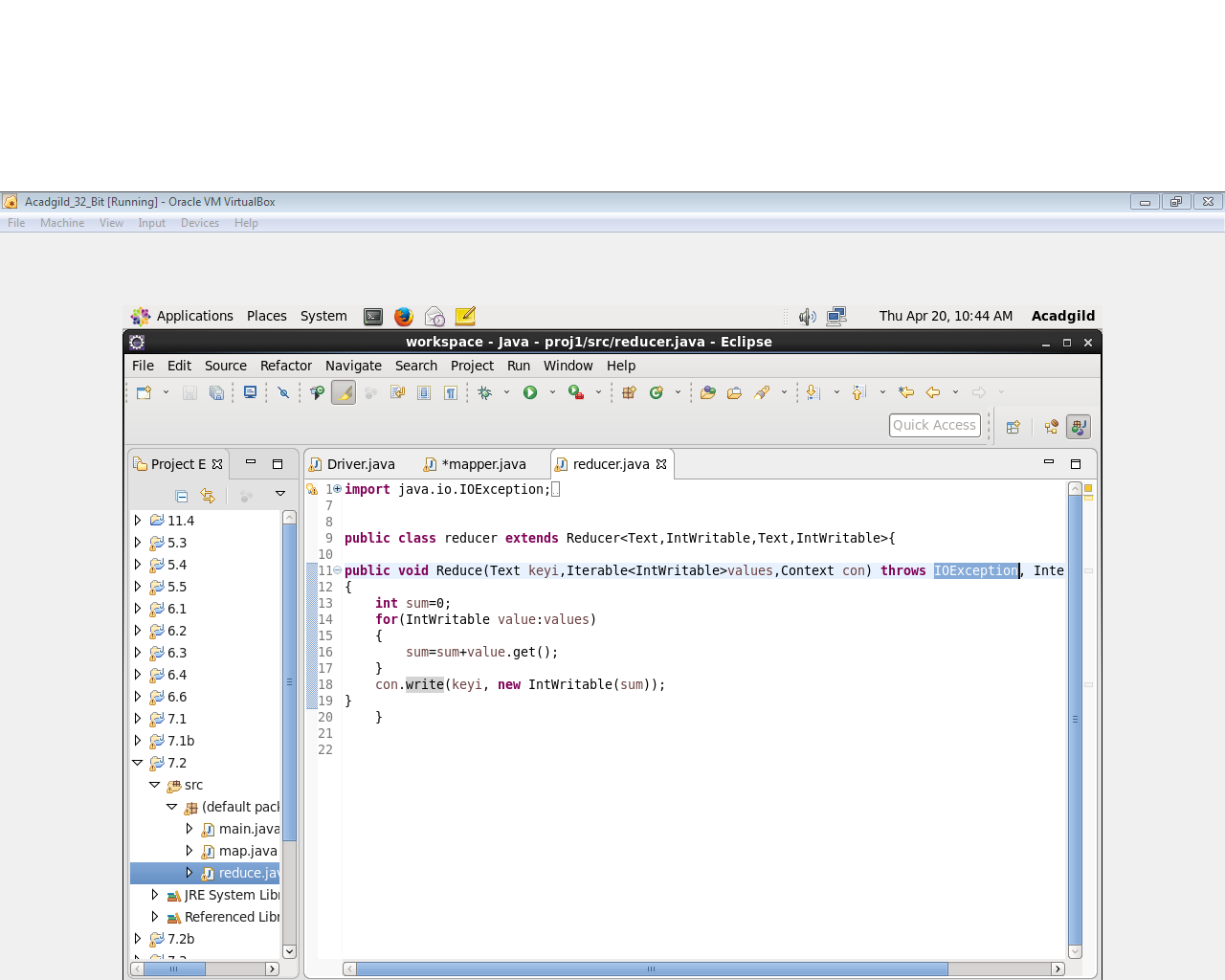
**AS VALUE**

**REDUCER**

**COUNT THE NUMBER OF COMPLAINTS FOR EACH CODE**

****

**REDUCER:**

****

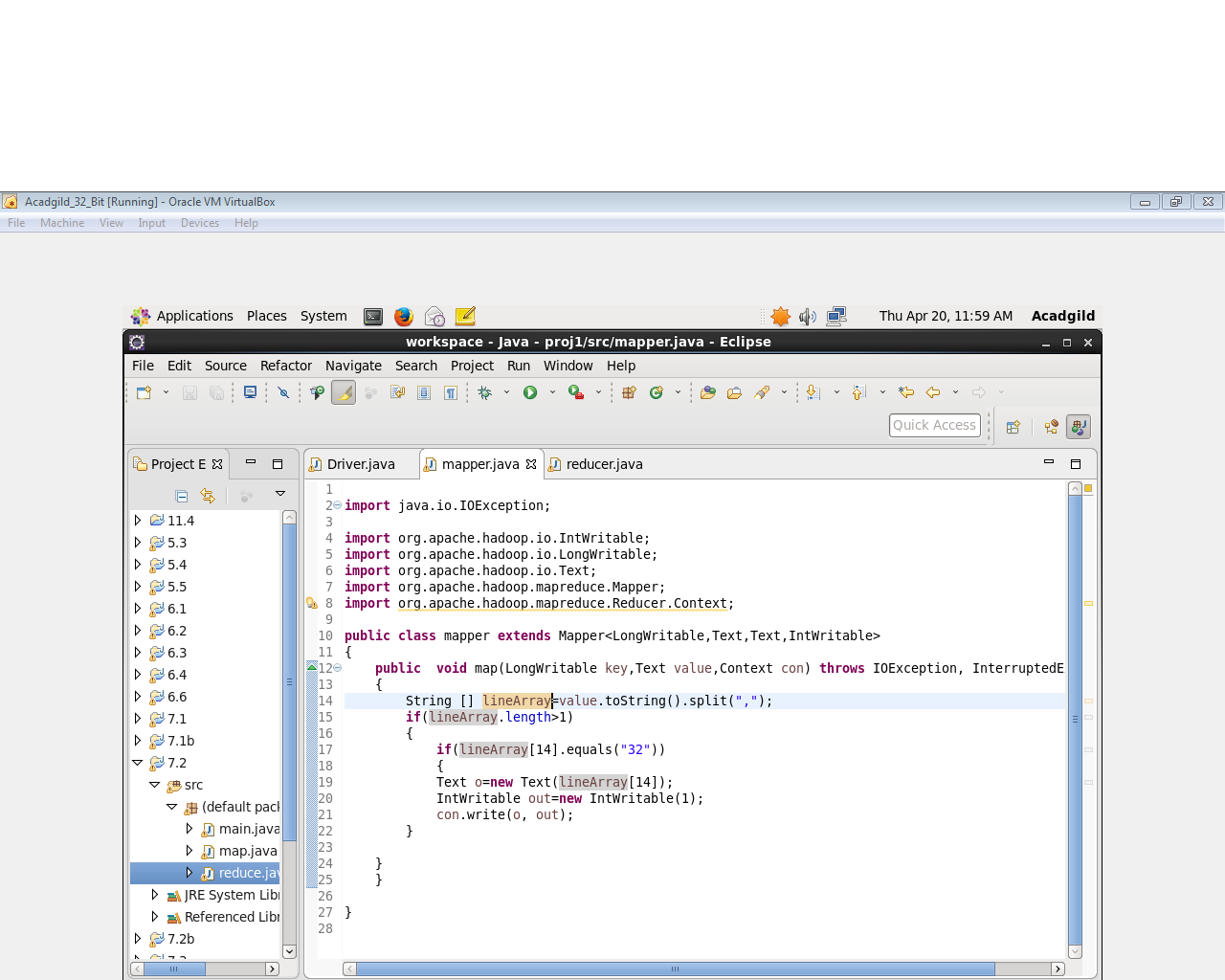
**QN2: Write a mapreduce and pig program to calculate the number of cases investigated under FBI code 32.**

**MAPPER**

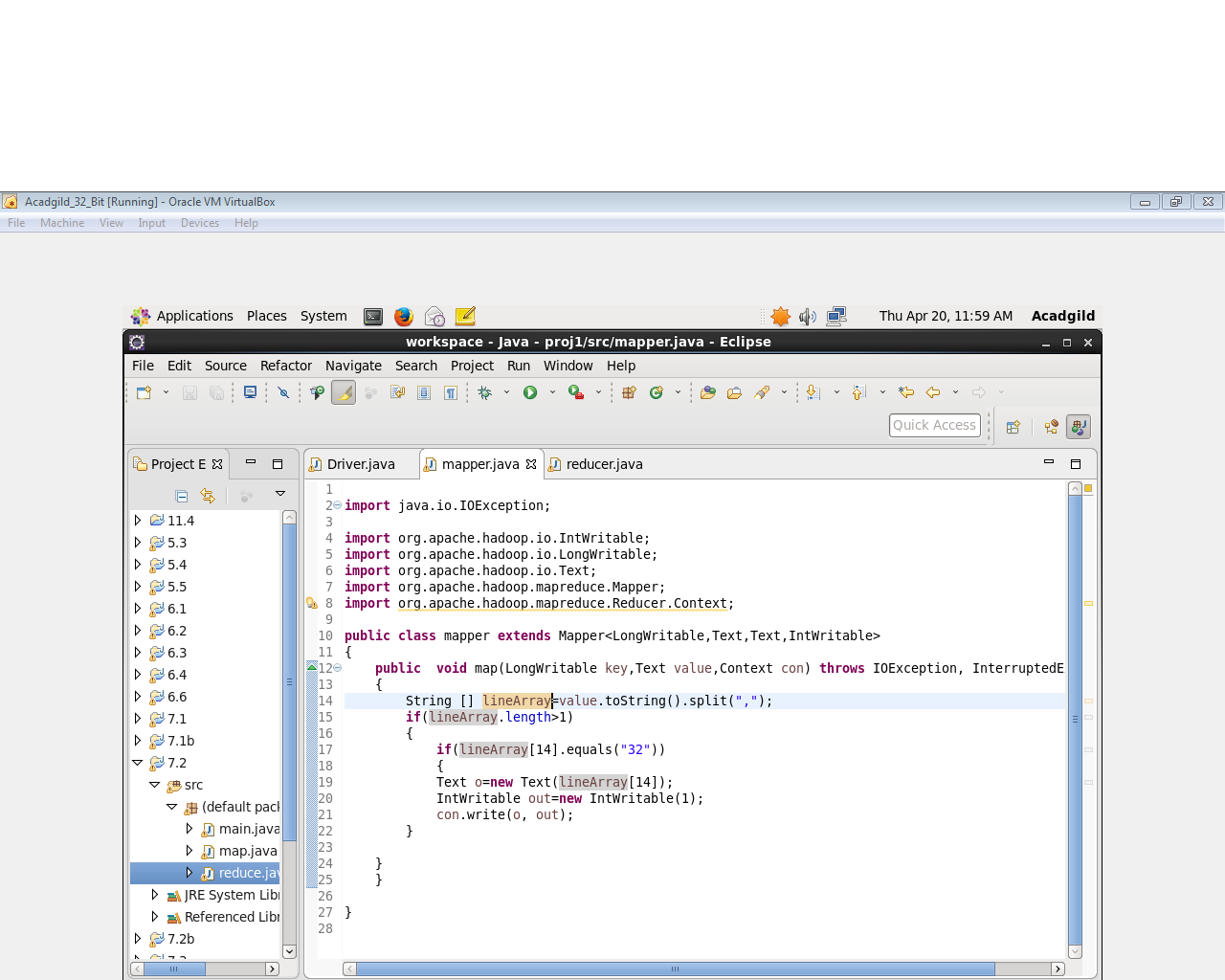
**LOGIC: FILTER BY FBI CODE = 32 AND SEND IT AS A KEY AND A COUNT OF 1 FOR EACH COMPLAINT**

**AS VALUE**

**DRIVER CLASS**

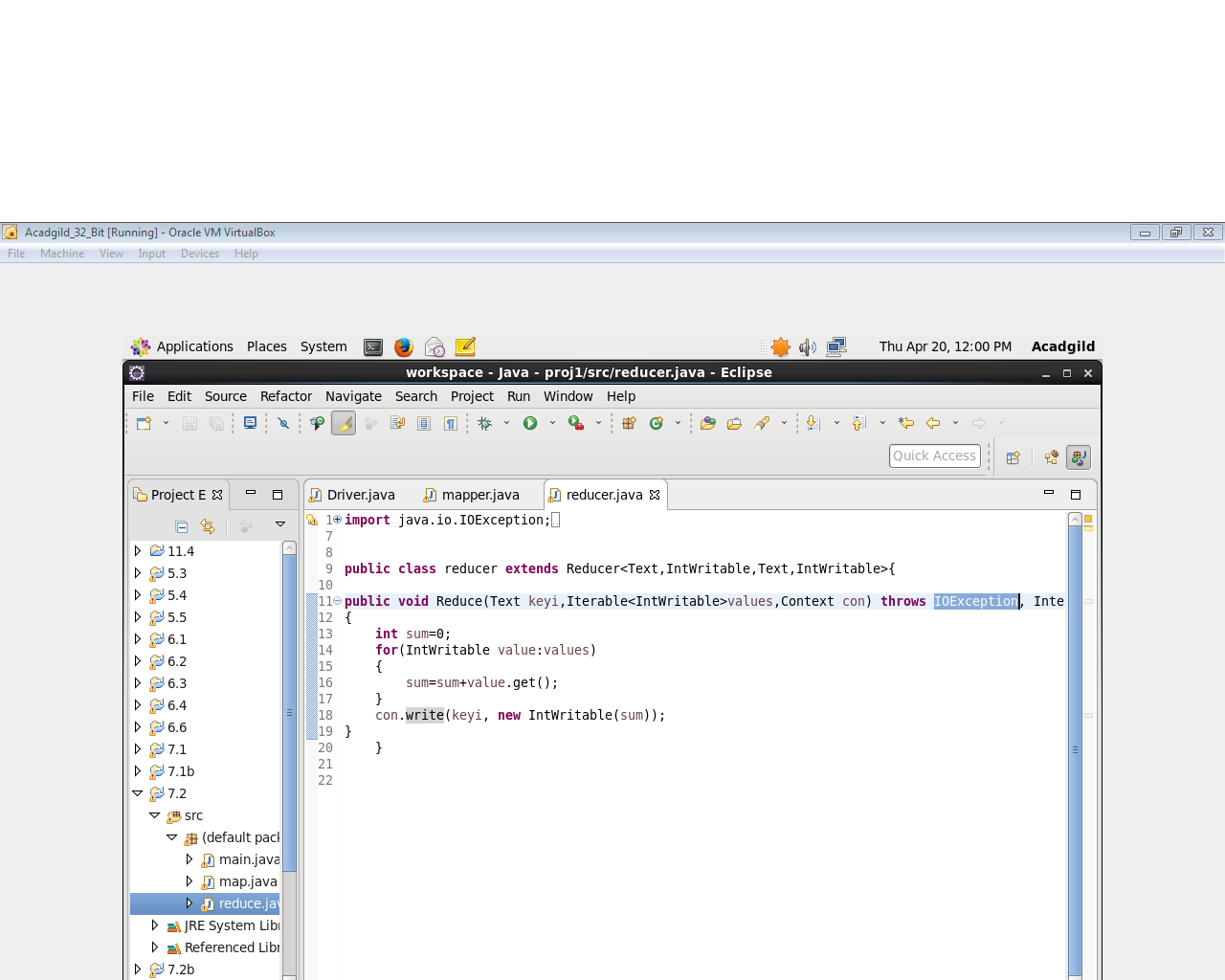
****

**MAPPER**

****

**REDUCER**

**COUNT THE NUMBER OF COMPLAINTS FOR CODE=32**

****

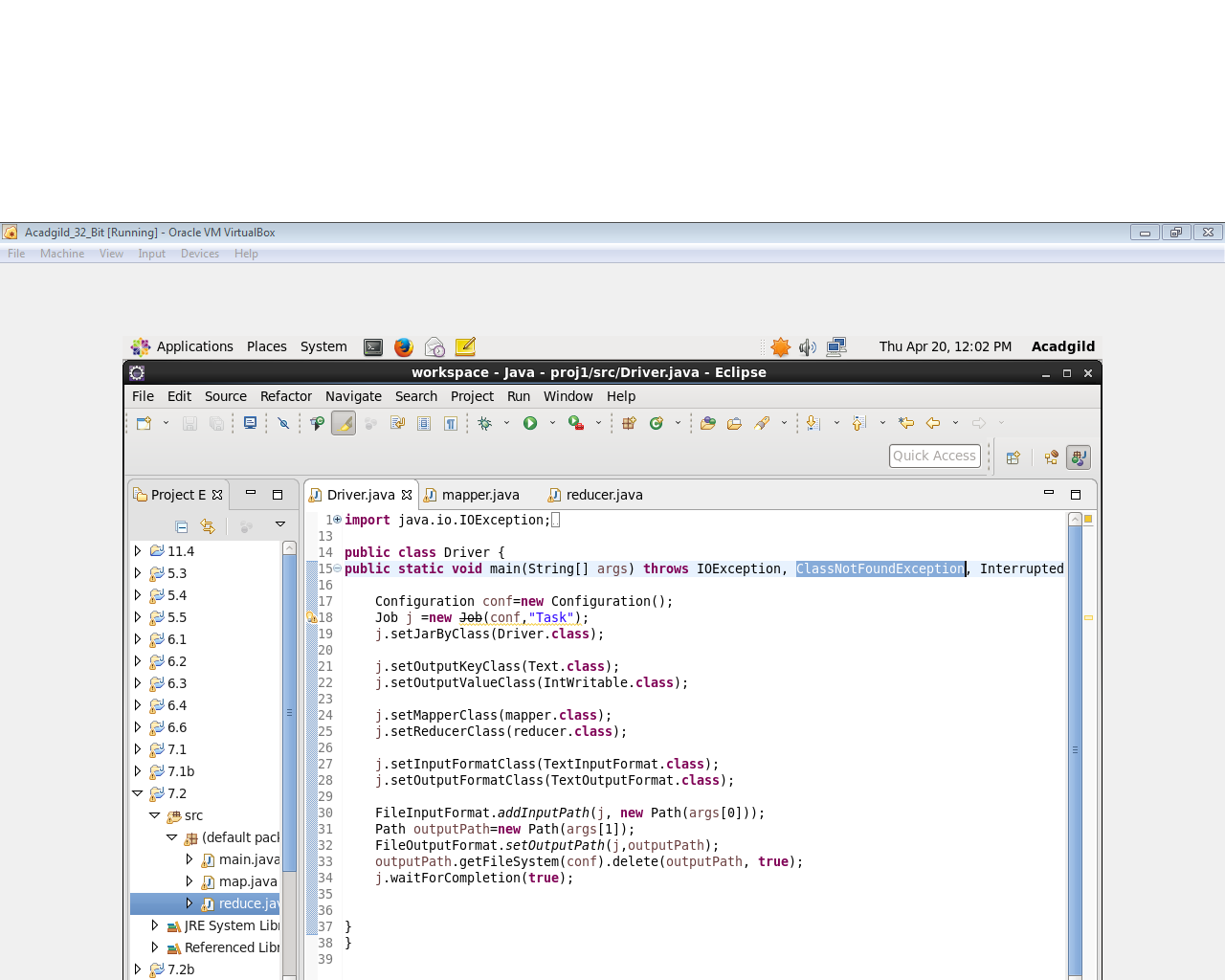
**QN3. Write a mapreduce and pig program to calculate the number of arrests in theft district wise.**

**MAPPER.**

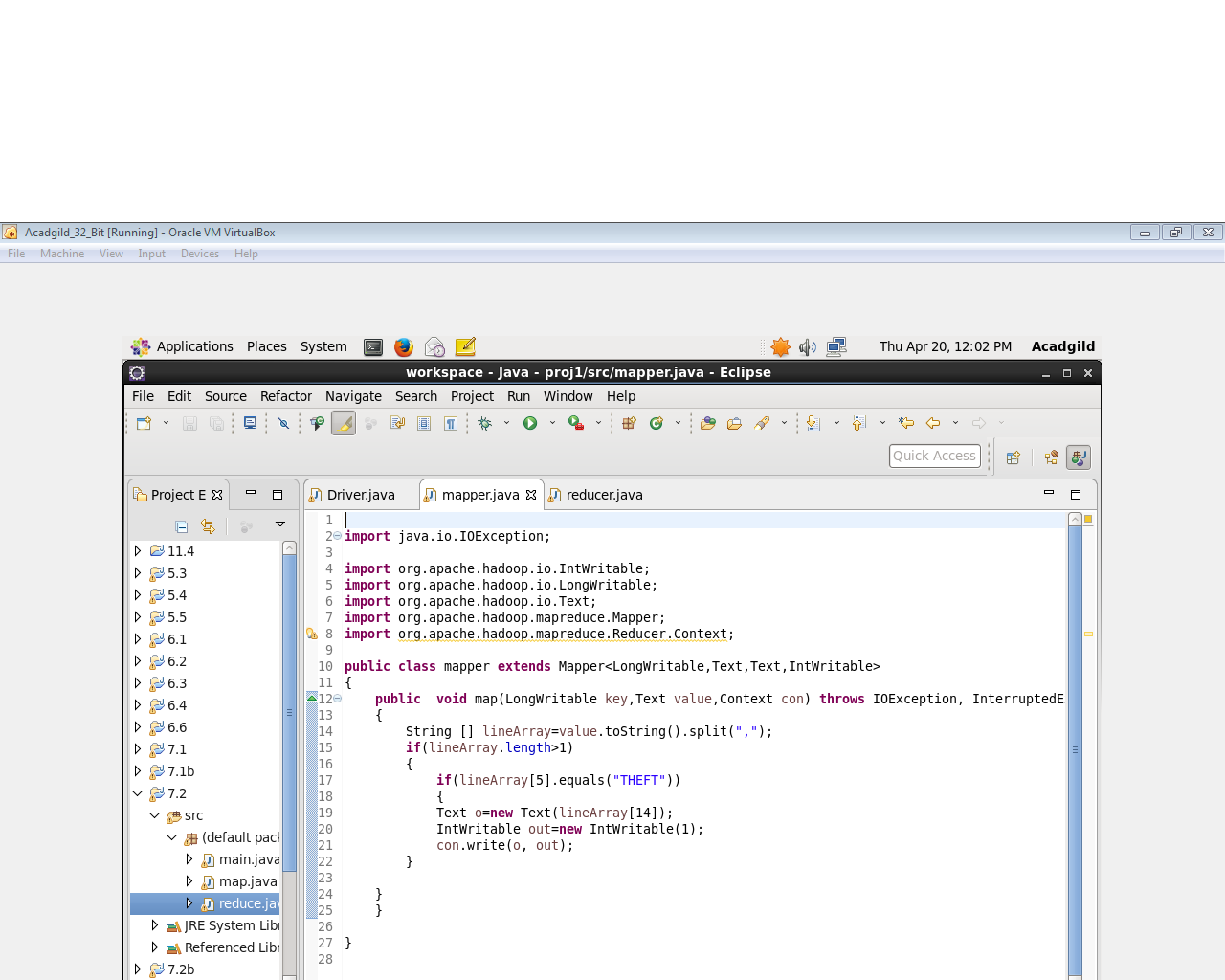
**LOGIC: STEP1:FILTER BY PRIMARY\_TYPE AS THEFT**

**SENT DISTRICT AS KEY AND A COUNT OF 1 AS VALUE**

**DRIVER CLASS:**

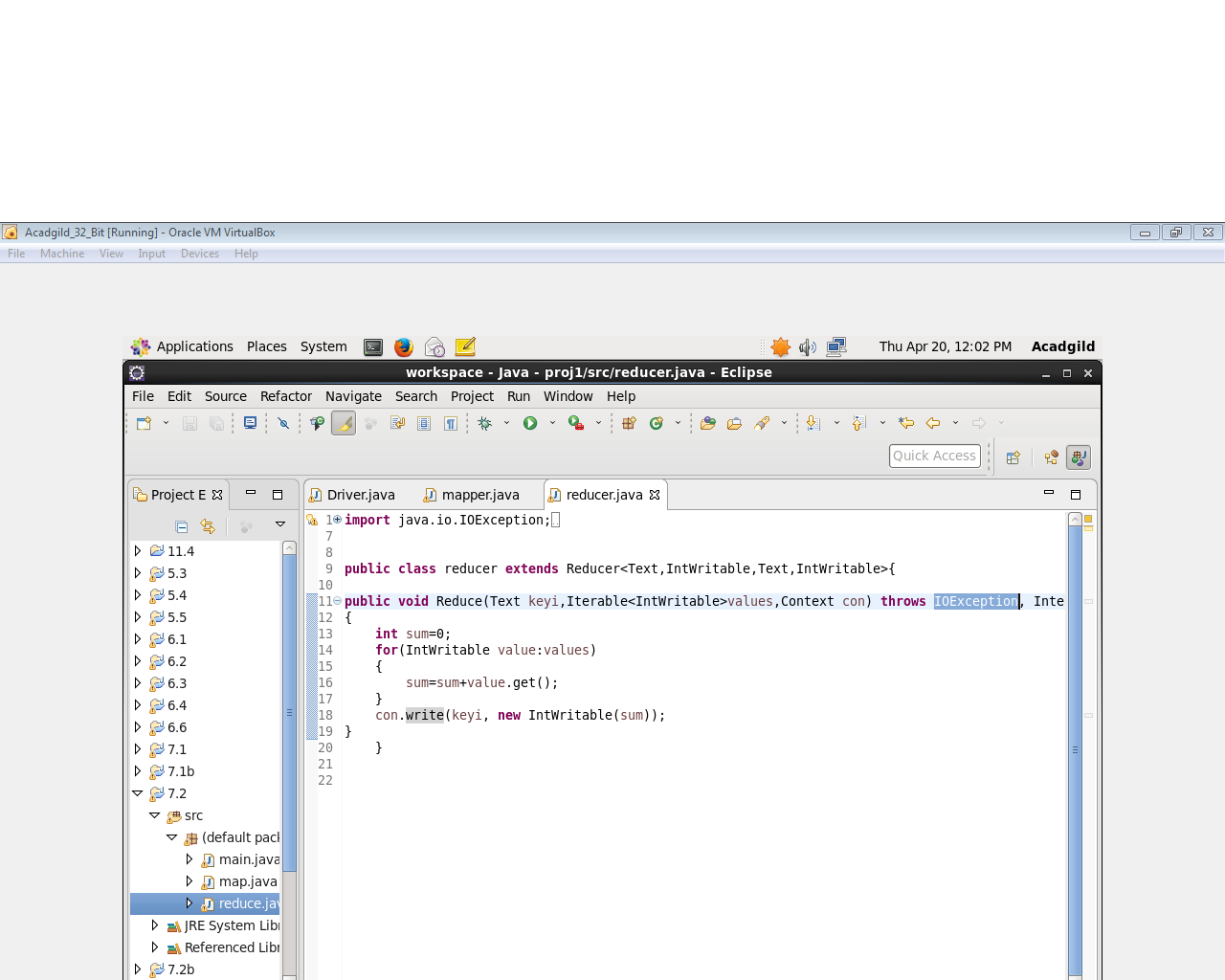
****

**MAPPER:**

****

**REDUCER**

**COUNT THE NUMBER OF COMPLAINTS FOR CODE=32**

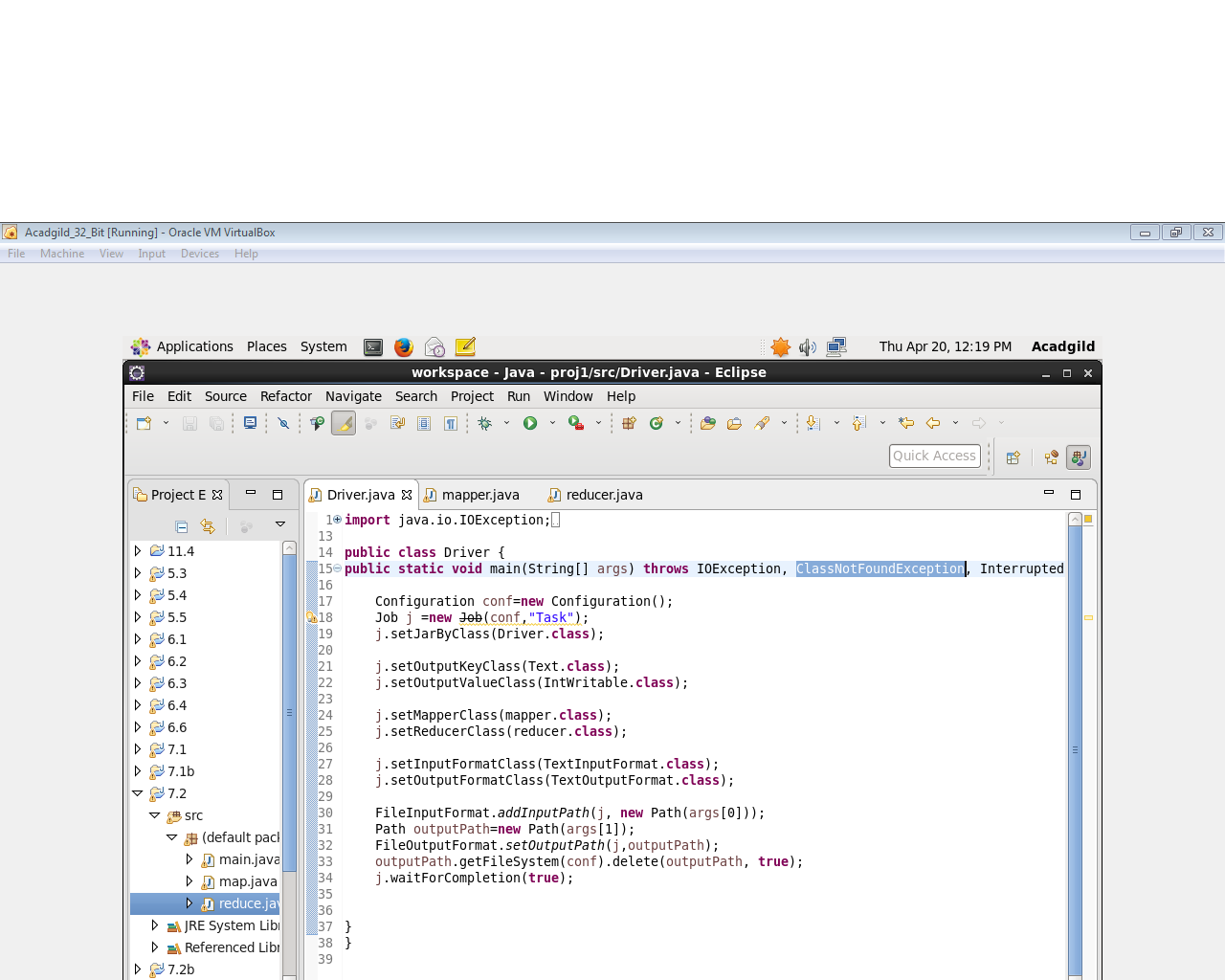
****

**QN4Write a mapreduce and pig program to calculate the number of arrests done between October 2014 and October 2015.**

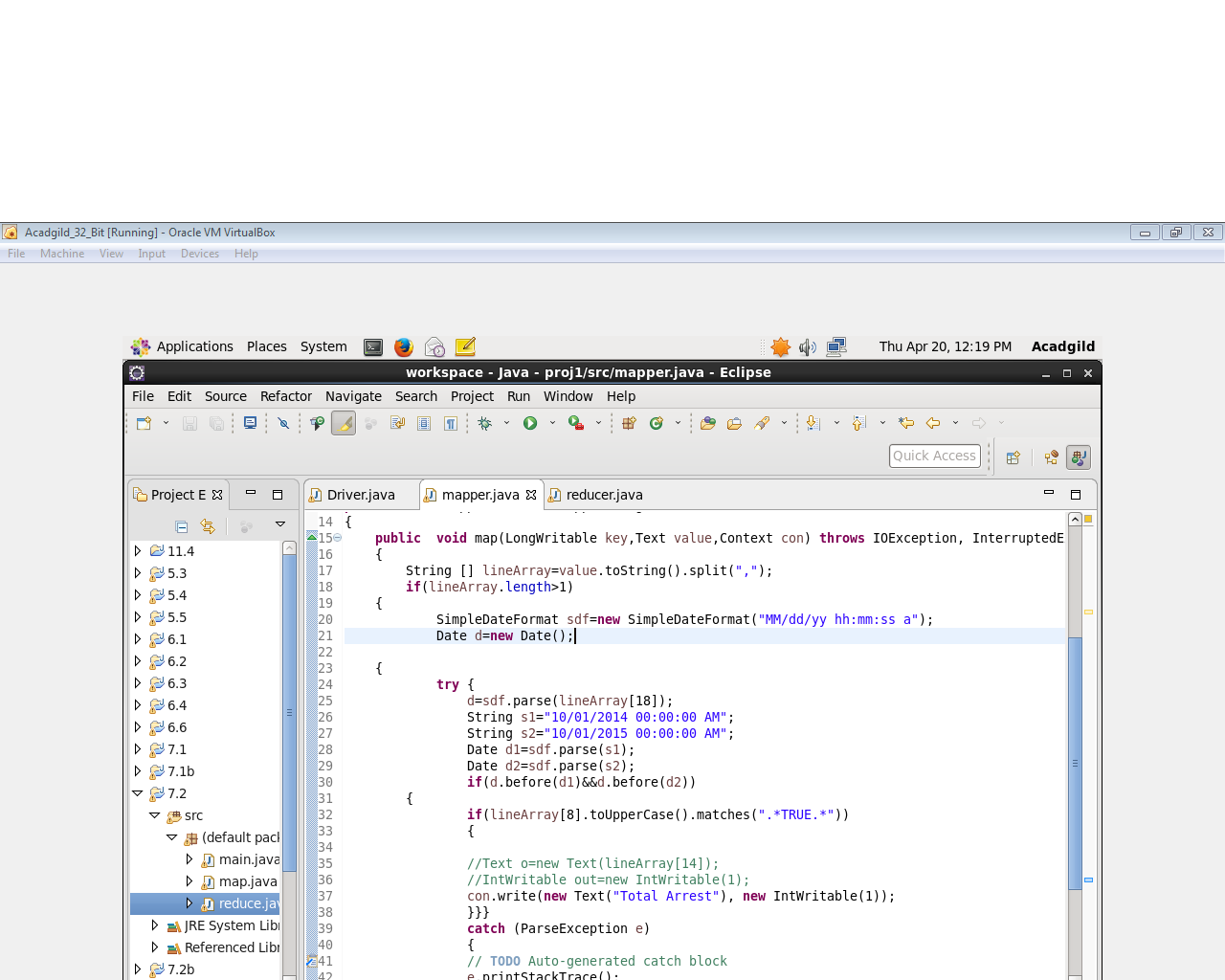
**MAPPER**

**LOGIC :USED DATE FUNCTION AND THEN CHECKED WHETHER ARREST IS TRUE AND SENT TOTAL AS KEY AND A COUNT OF 1 AS VALUE**

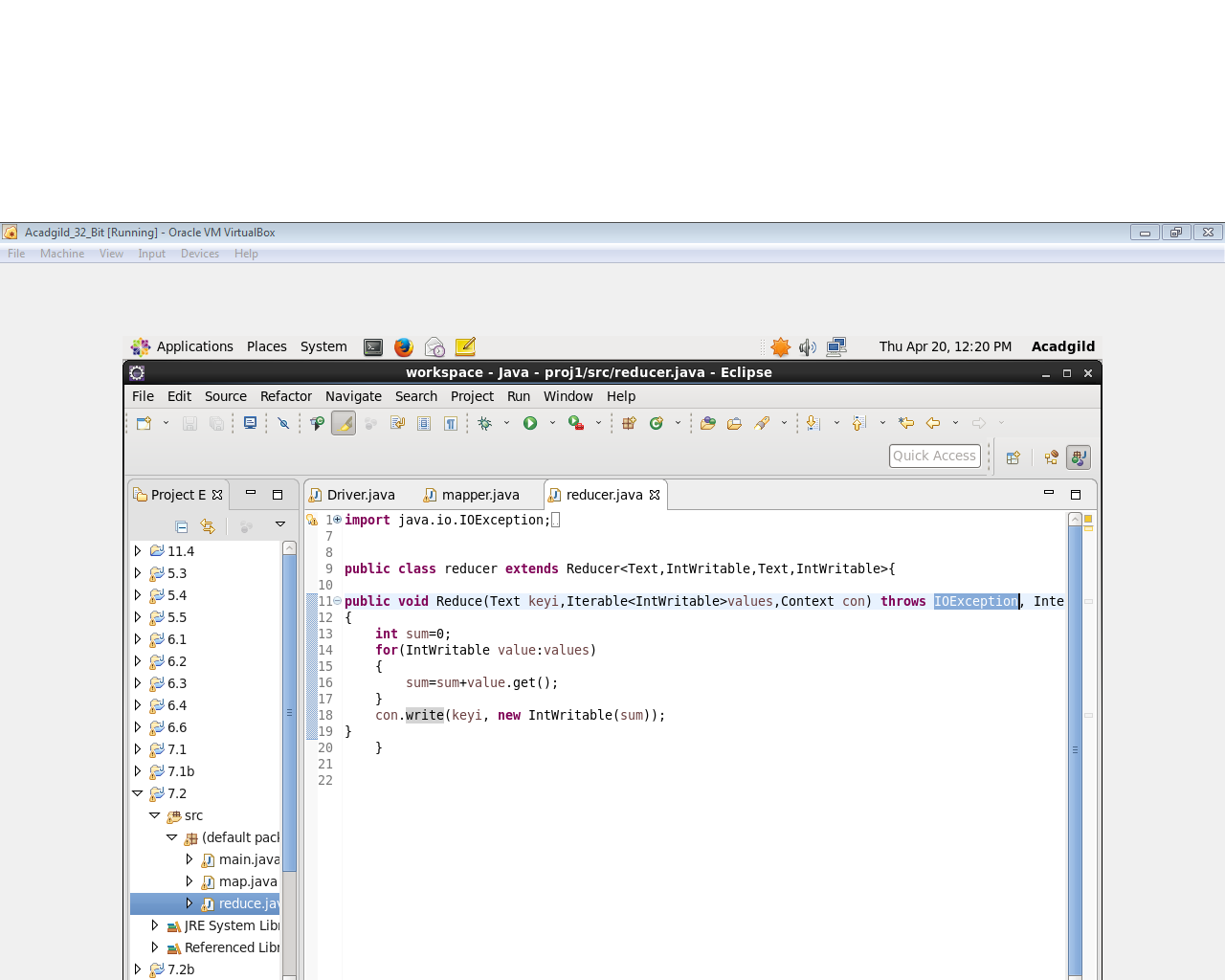
**REDUCER**

****

**MAPPER**

****

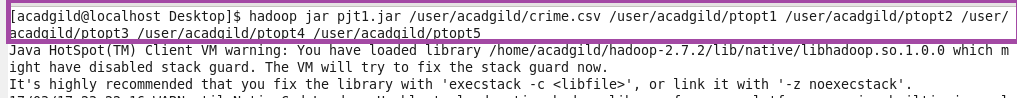
**REDUCER**

****

**REDUCER**

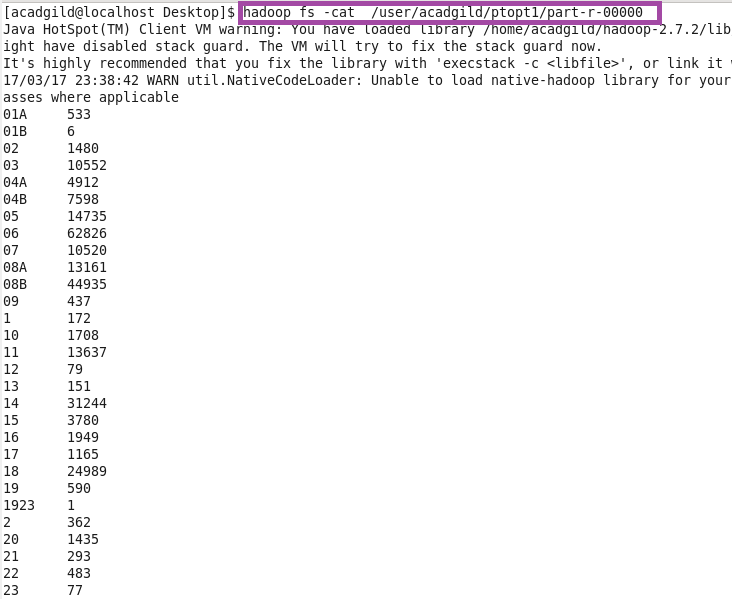
**COUNT THE NUMBER OF ARRESTS**

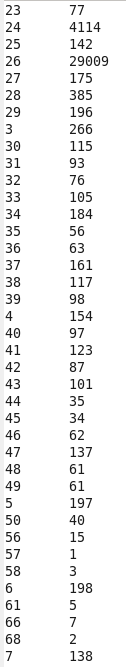
**RUNNING JAR**

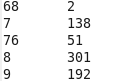
****

**OUTPUT:**

**QN1(PART1)**

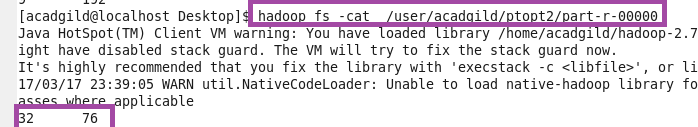
****

****

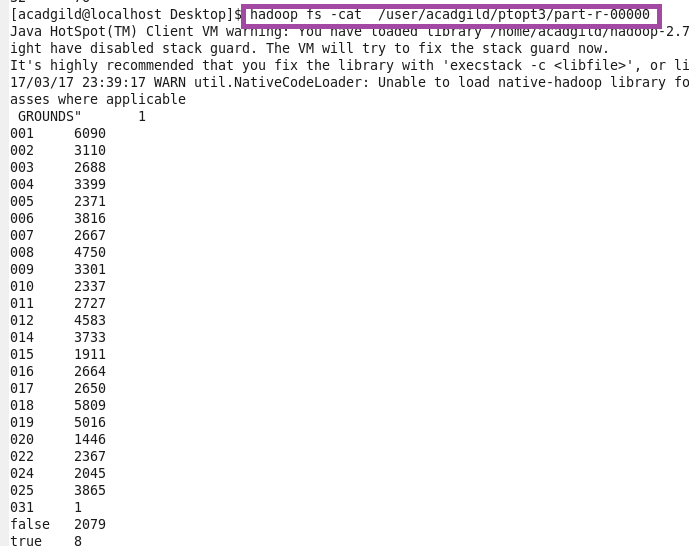
****

**Otpt2**

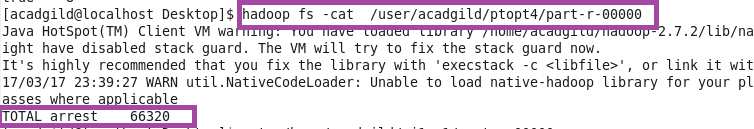
**QN2 (OUTPUT)**

****

**QN3 (OUTPUT)**

****

**OUTPUT FOR QN4**

****

**USING PIG SCRIPT**

**LOGIC**

**QN1: Write a map reduce and pig program to calculate the number of cases investigated under each FBI code**

**LOGIC:GROUP BY FBI CODE AND MADE A COUNT**

**QN2: Write a map reduce and pig program to calculate the number of cases investigated under FBI code 32.**

**LOGIC :FILTER BY FBI CODE =32 AND GROUP BY FBI CODE AND MADE A COUNT**

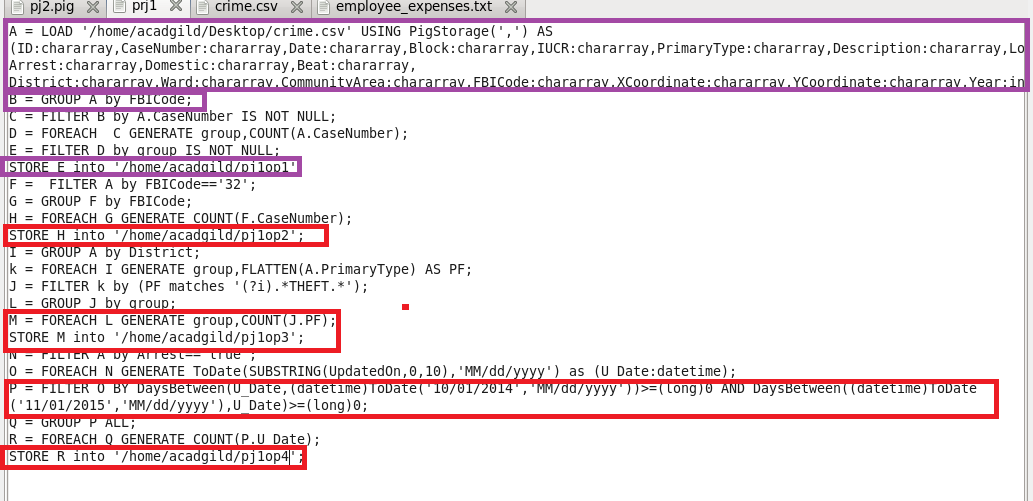
**QN3: 3. Write a map reduce and pig program to calculate the number of arrests in theft district wise**

**LOGIC: GROUP BY DISTRICT AND THEN FILTER BY ARREST=TRUE AND MADE A COUNT**

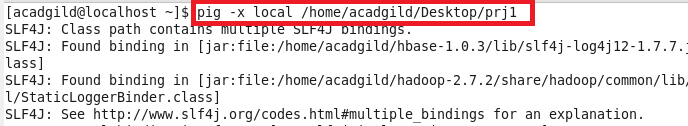
**QN4. 4. Write a map reduce and pig program to calculate the number of arrests done between October 2014 and October 2015.**

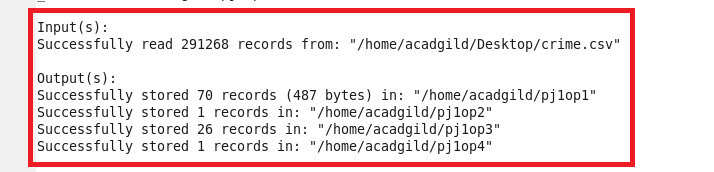
**USED TODATE FUNCTION TO CONVERT INTO DATE AND THEN USED DAYS BETWEEN TO FILTER BY DATE AND MADE A COUNT**

**PIG COMMANDS**

****

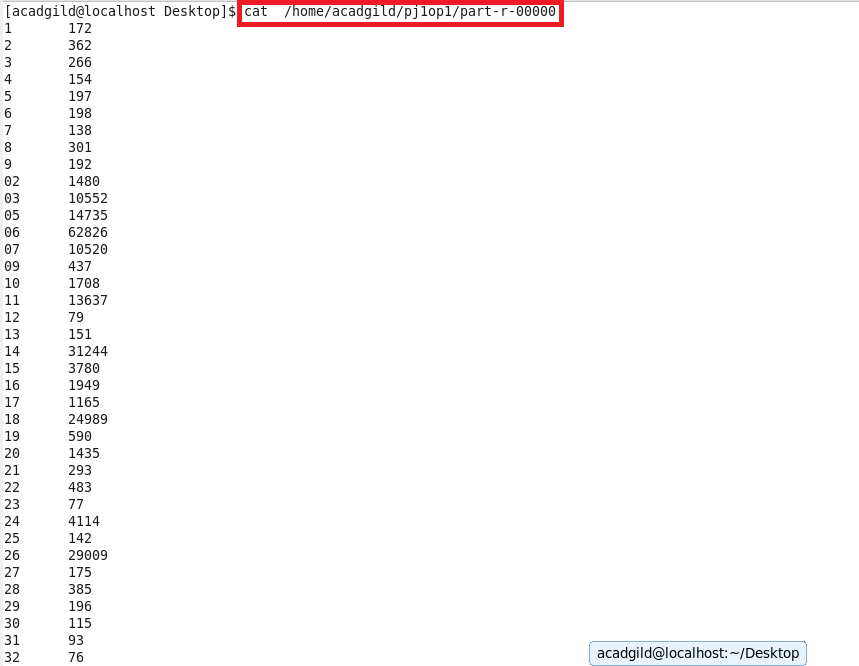
**RUNNING PIG SCRIPT**

****

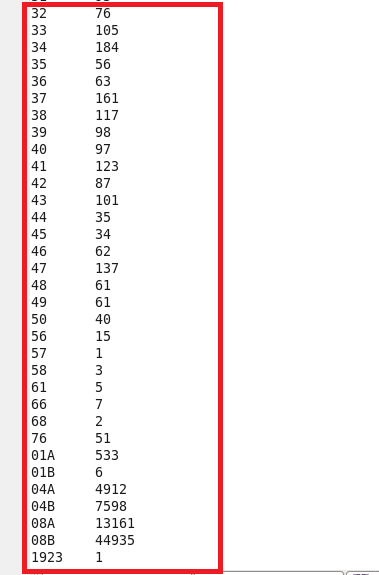
****

**PIG OUPUT 1**

**PART1**

****

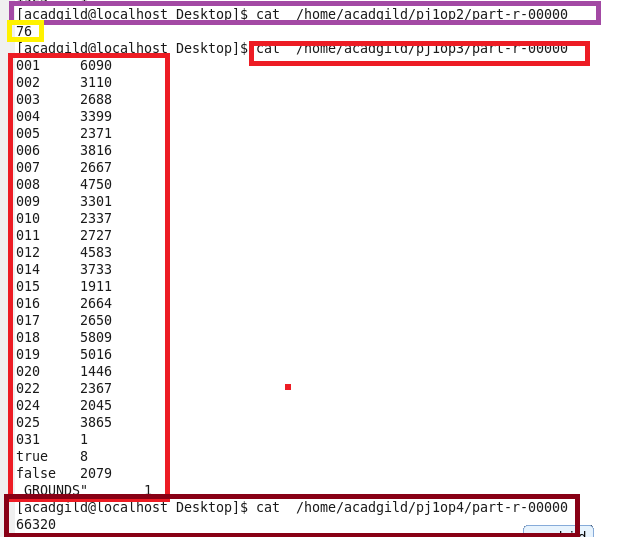
**PART1 (CONTINUED)**

****

**QN2(PJ1 OUTPUT2)**

**QN3(PJ1 OUTPUT3)**

**QN4(PJ1 OUTPUT4)**

****