PROJECT -1

**PROBLEM STATEMENT:**

**Dataset Description:**

ID,Case Number,Date,Block,IUCR,PrimaryType,Description,Location

Description,Arrest,Domestic,Beat,District,Ward,Community Area,FBICode,X Coordinate,Y Coordinate,Year,Updated On,Latitude,Longitude,Location

**Problem**

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

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

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

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

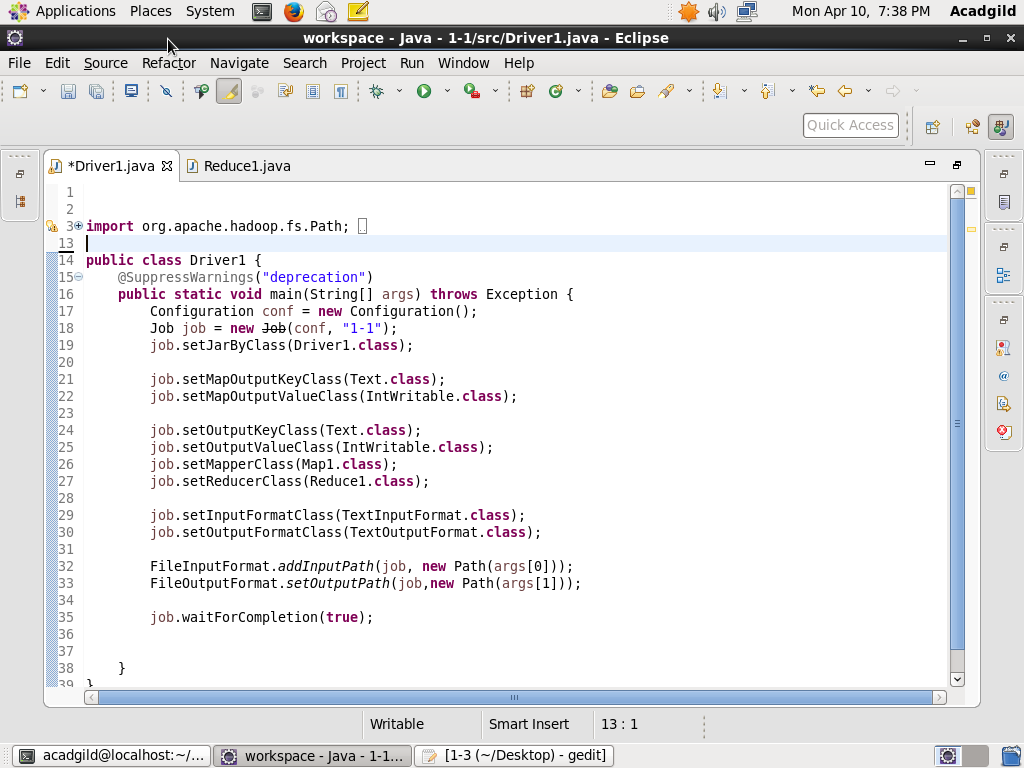
**Q1-Write a mapreduce and pig program to calculate the number of cases investigated under each FBI code.**

**SOLUTION:**

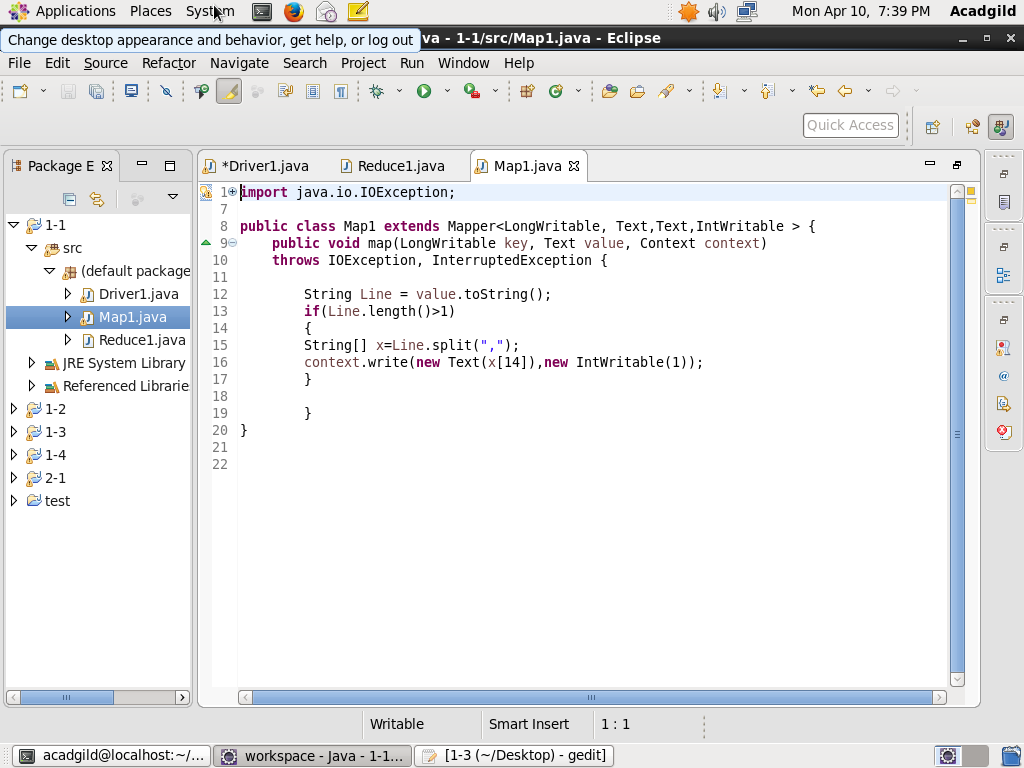
**1. MAP REDUCE:**

**PROGRAM:**

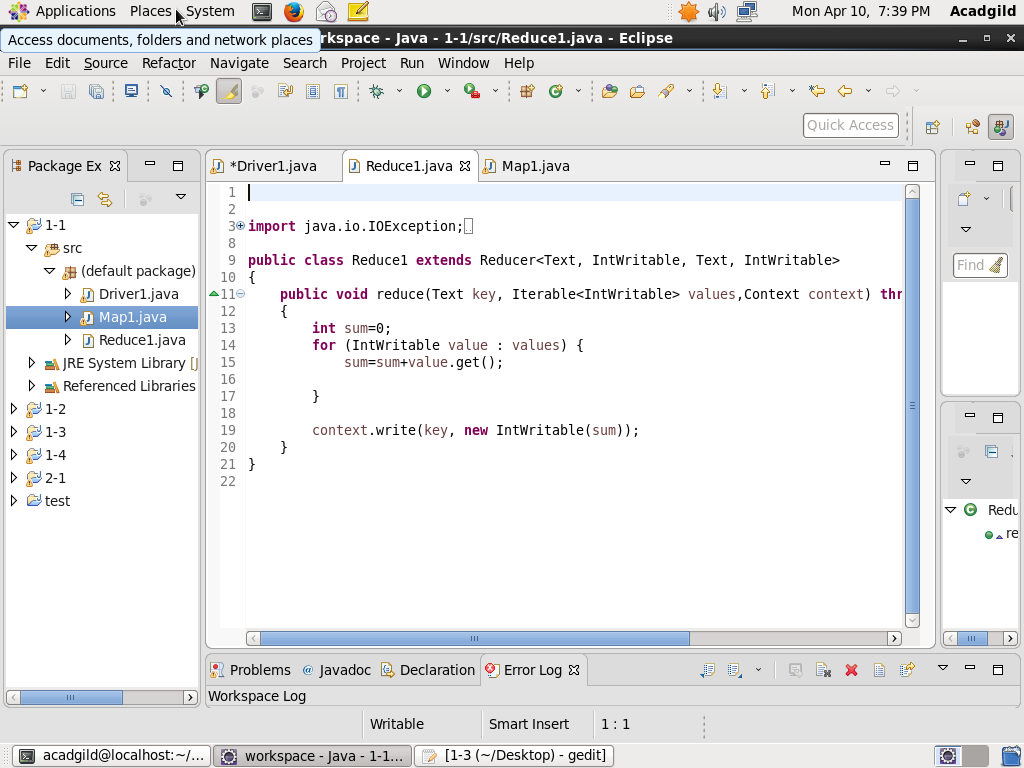
DRIVER CLASS

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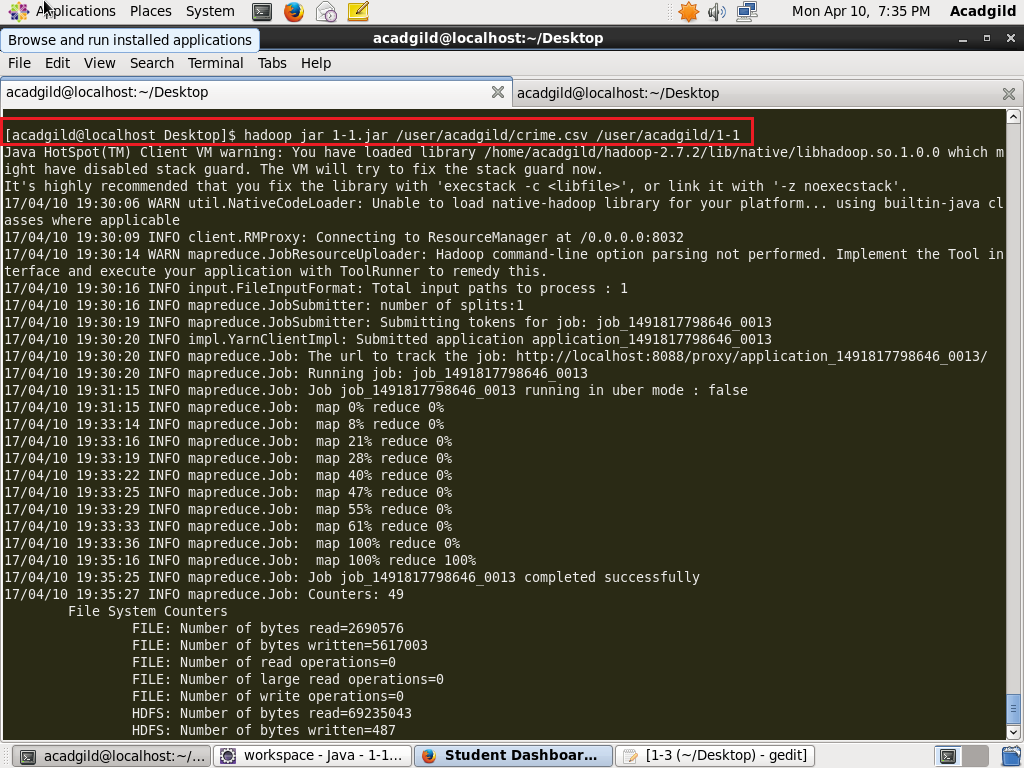
MAPPER CLASS

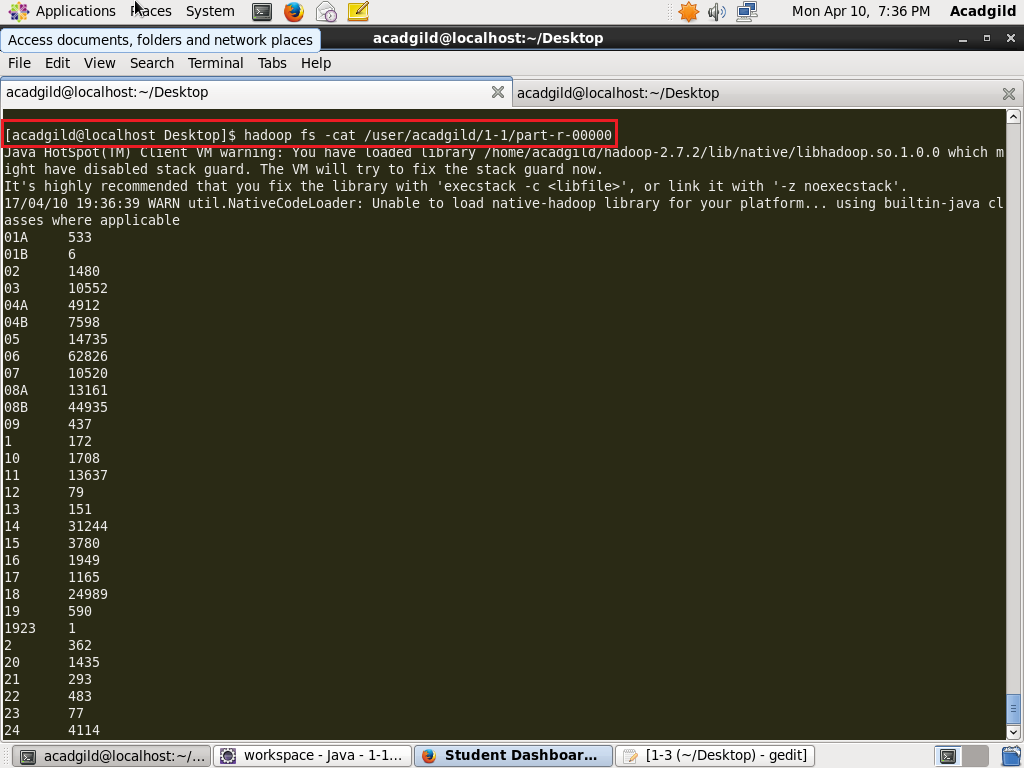


REDUCER CLASS

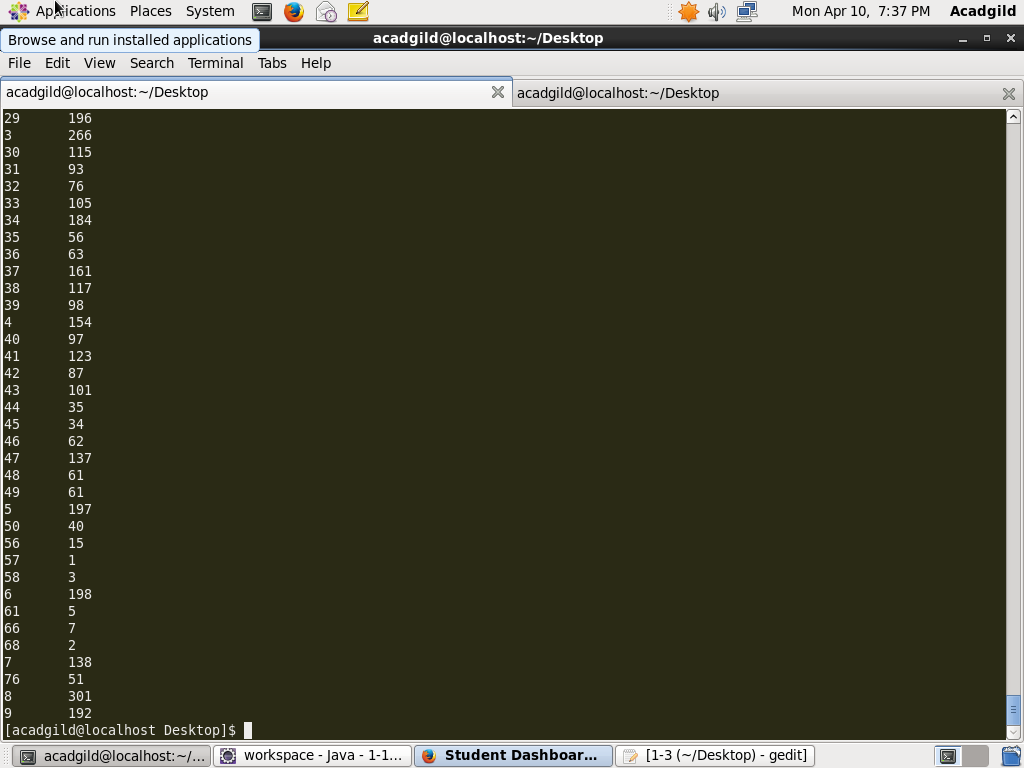


**EXECUTION COMMAND:**

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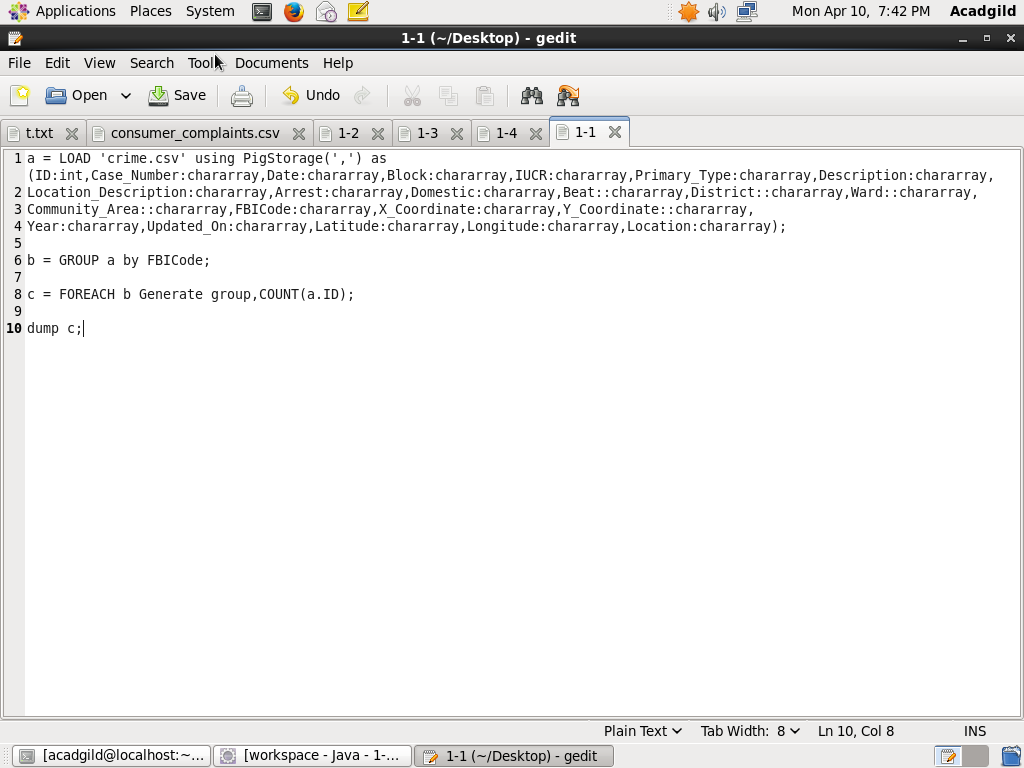
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**OUTPUT:**

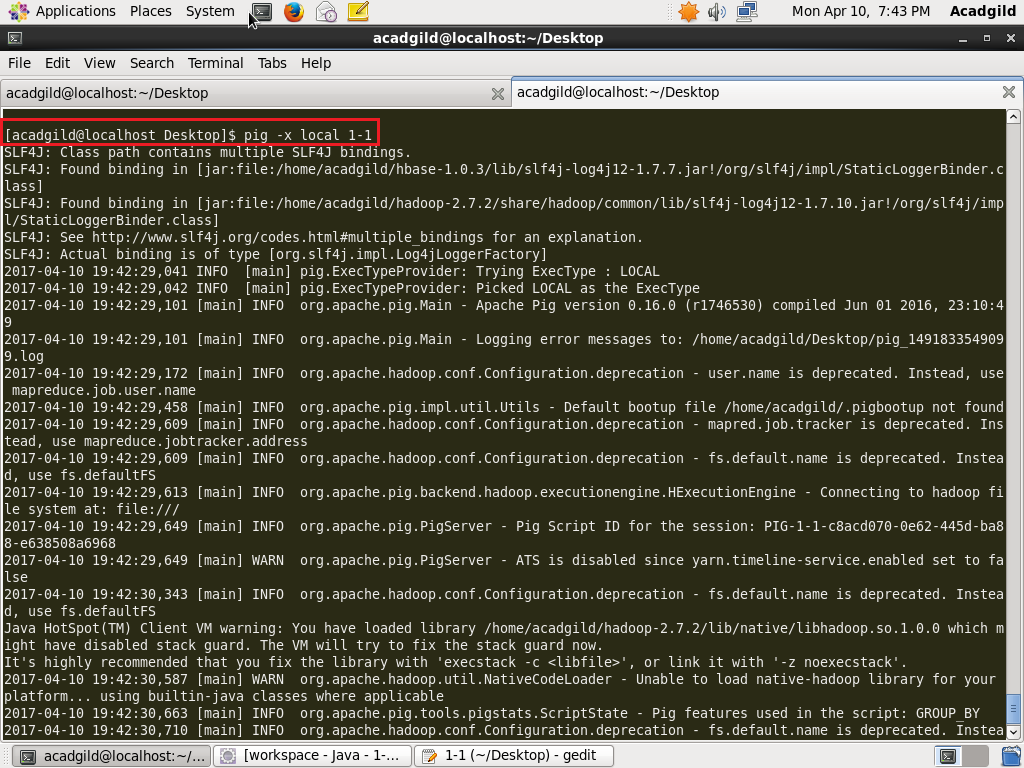
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**2. PIG:**

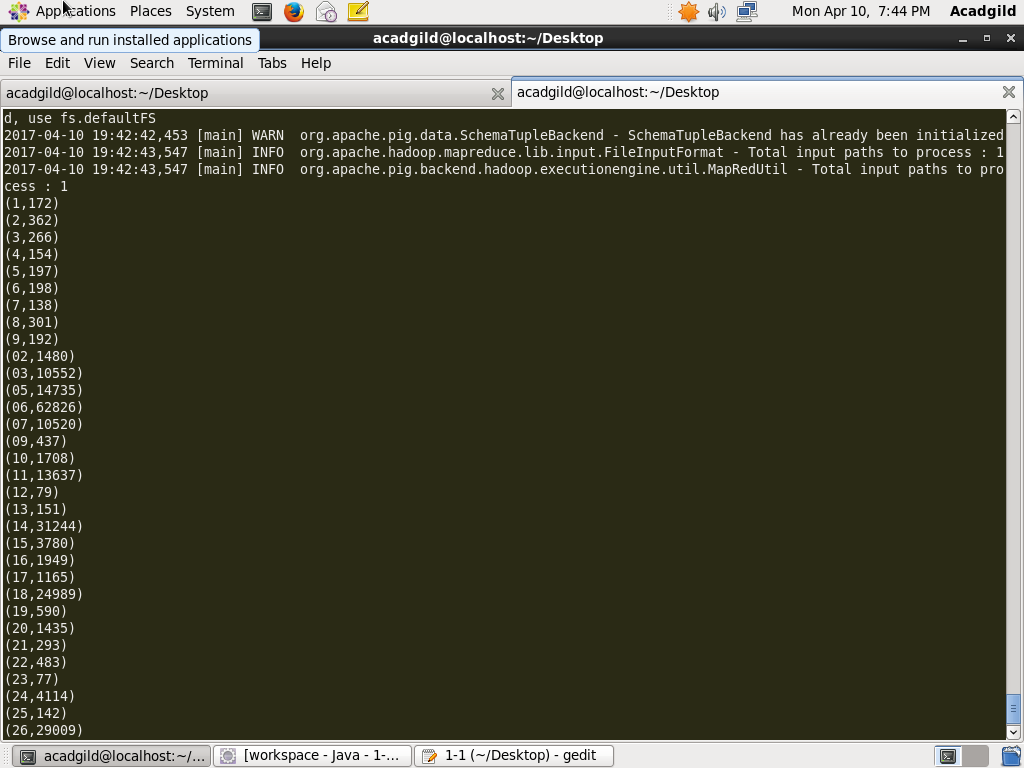
**PROGRAM:**

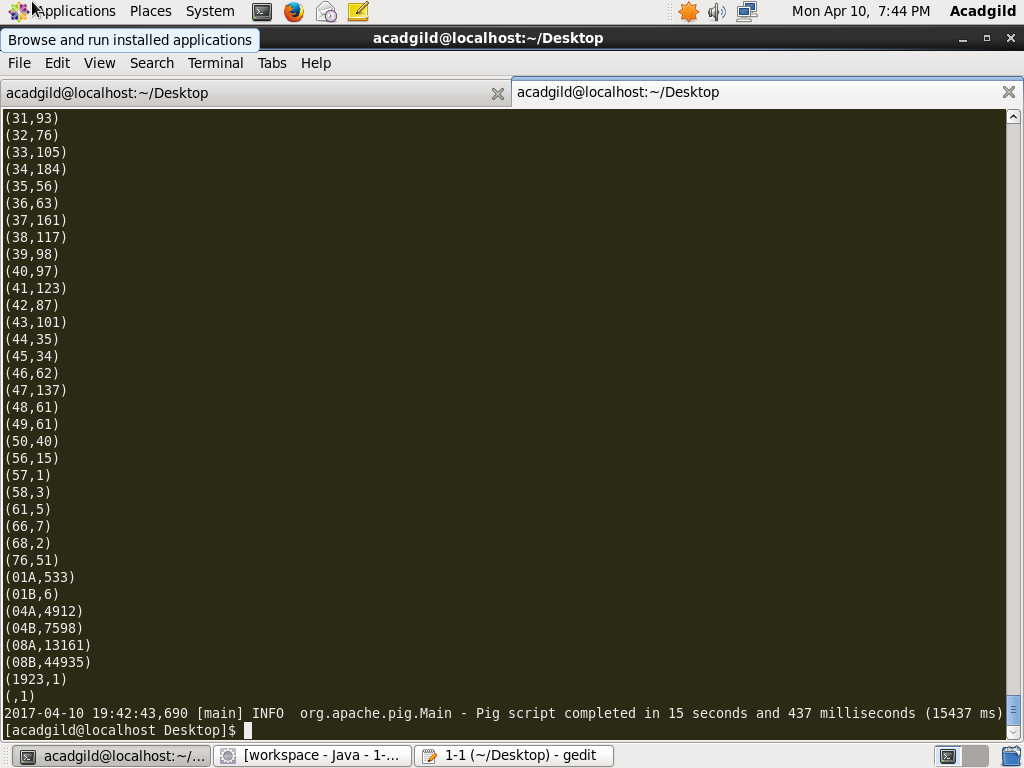
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**EXECUTION COMMAND:**

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**OUTPUT:**

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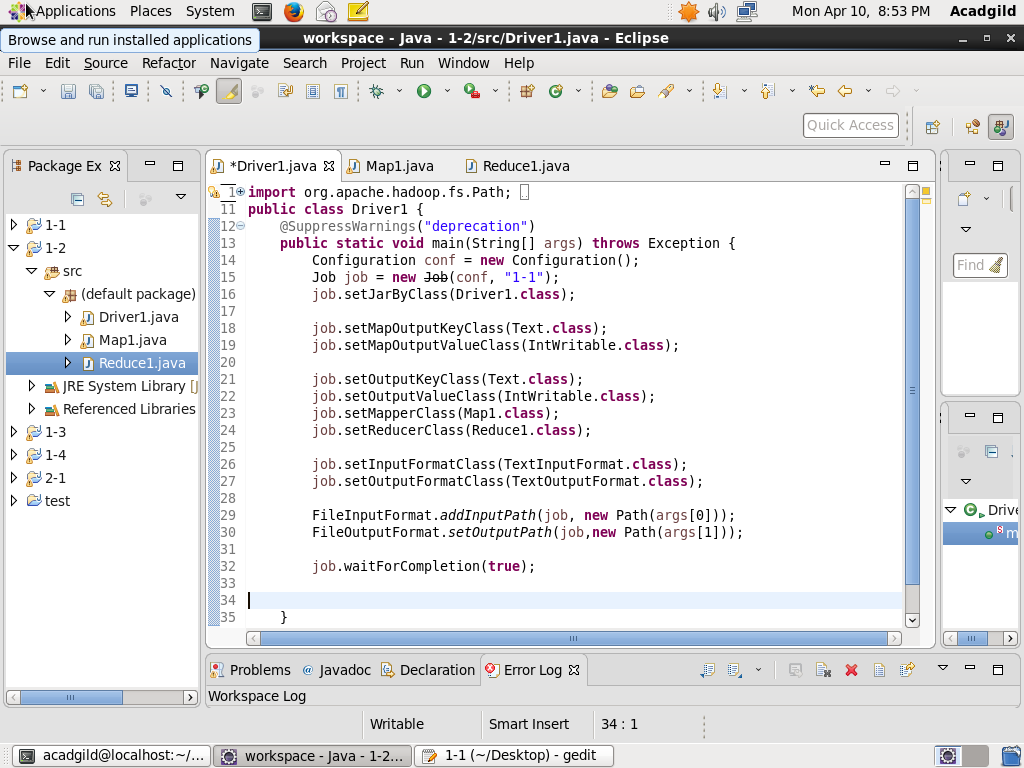
**Q2-Write a mapreduce and pig program to calculate the number of cases investigated under FBI code 32.**

**SOLUTION:**

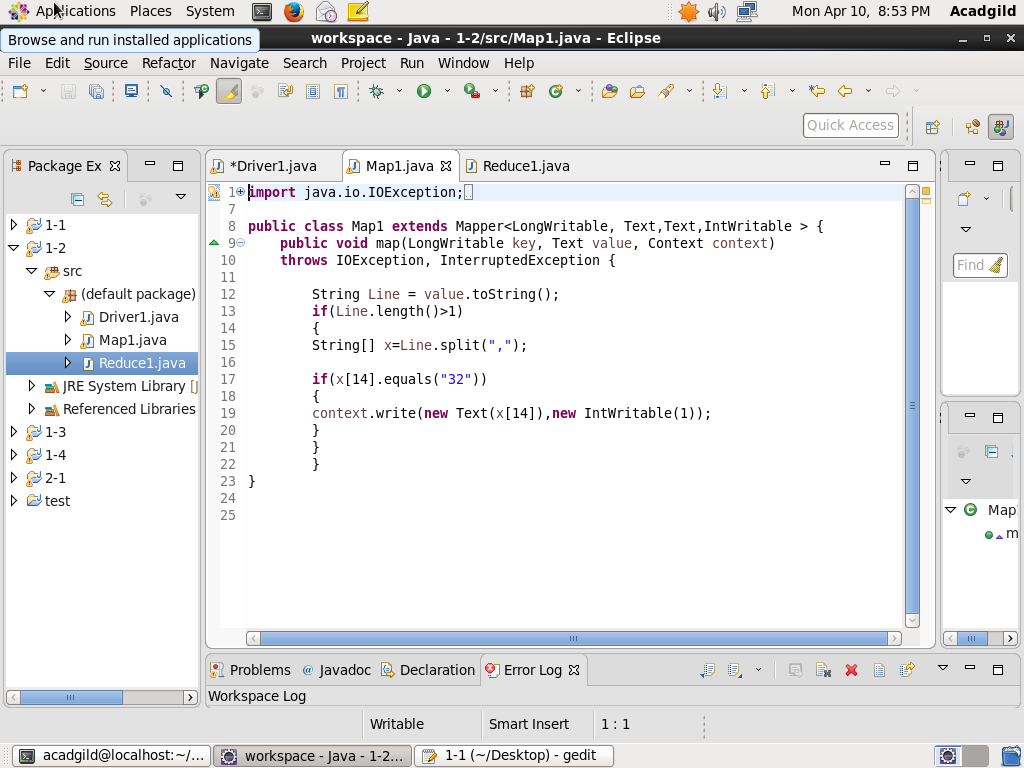
**1. MAP REDUCE:**

**PROGRAM:**

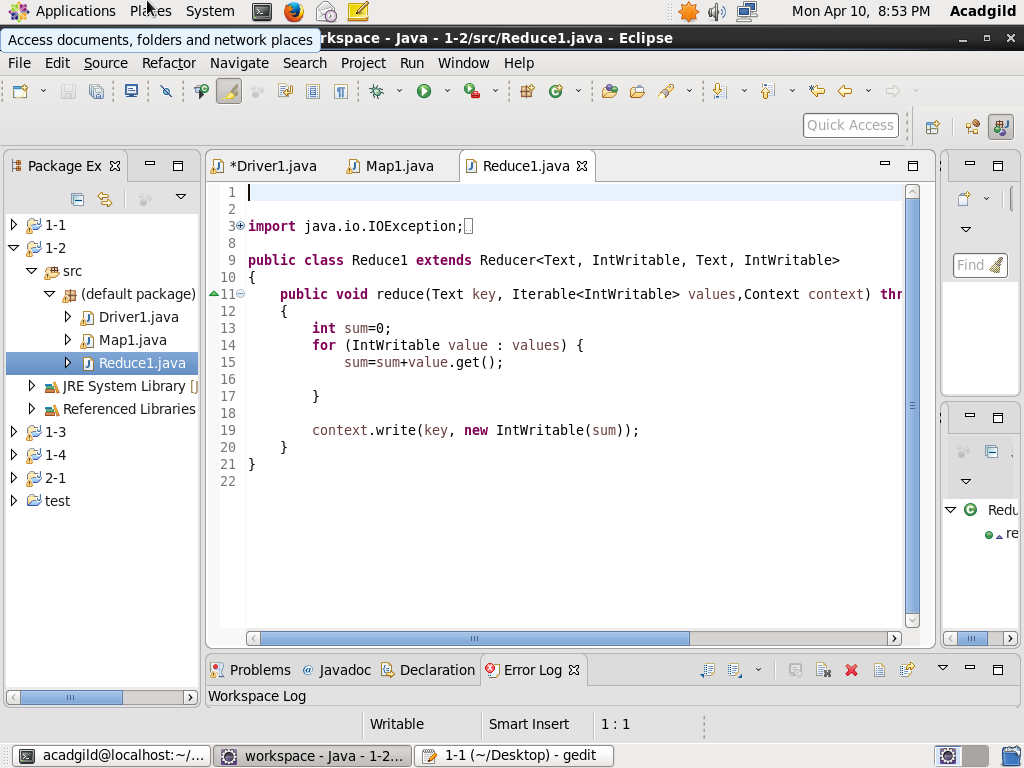
DRIVER CLASS

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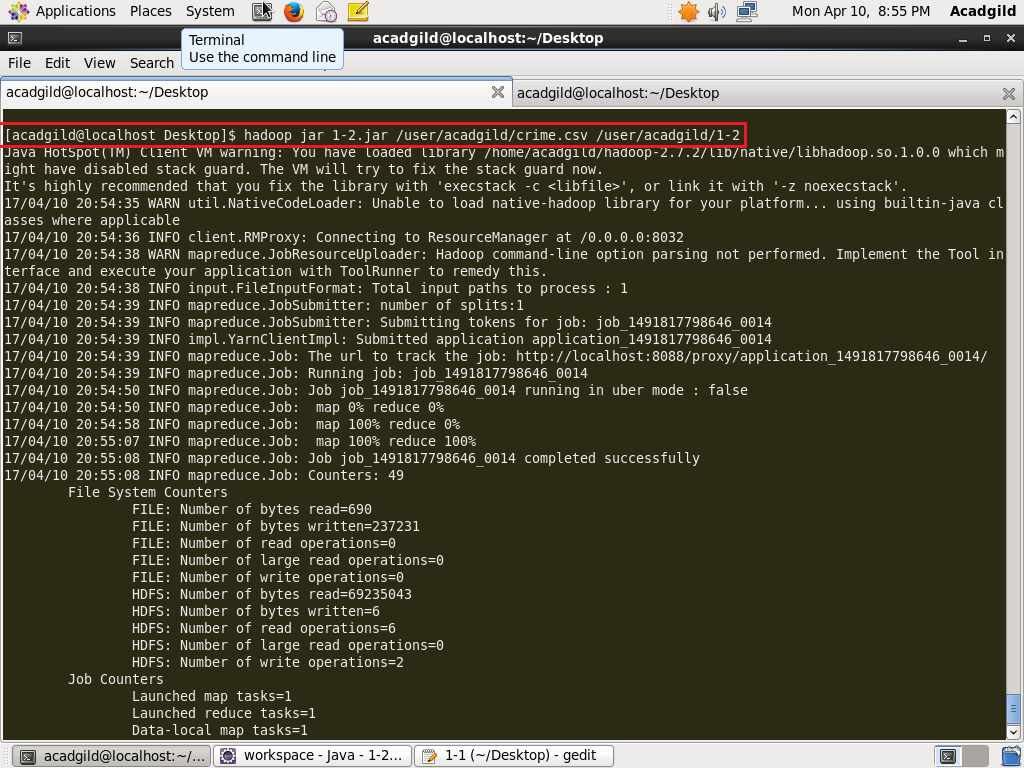
MAPPER CLASS



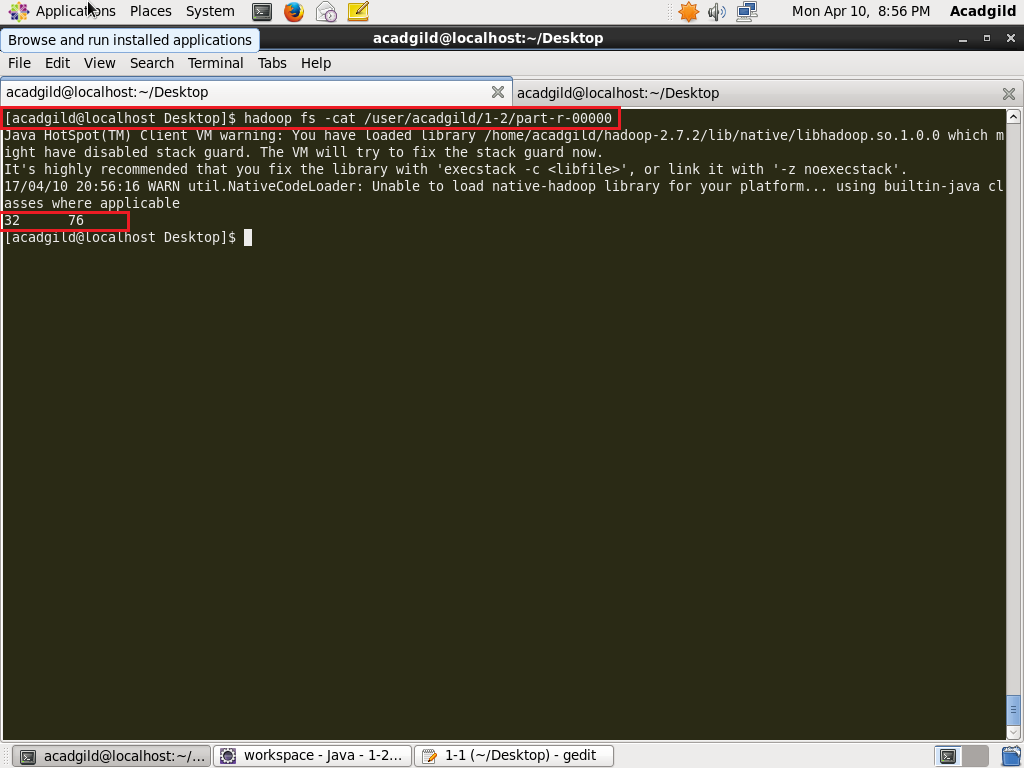
REDUCER CLASS



**EXECUTION COMMAND:**

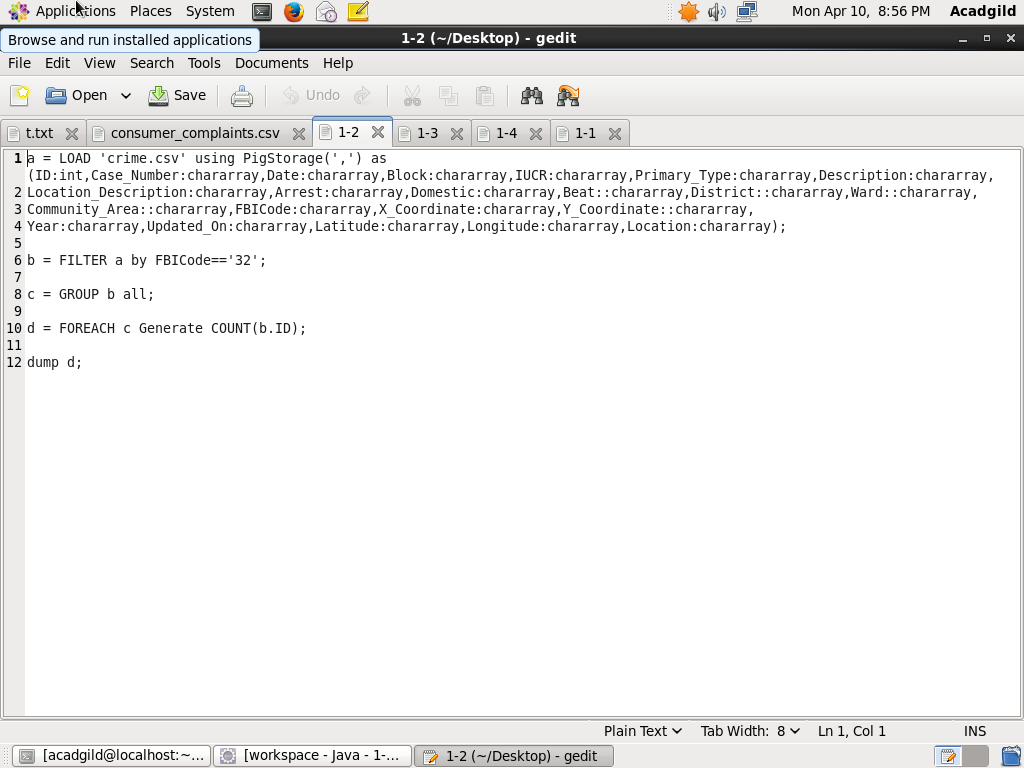
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**OUTPUT:**

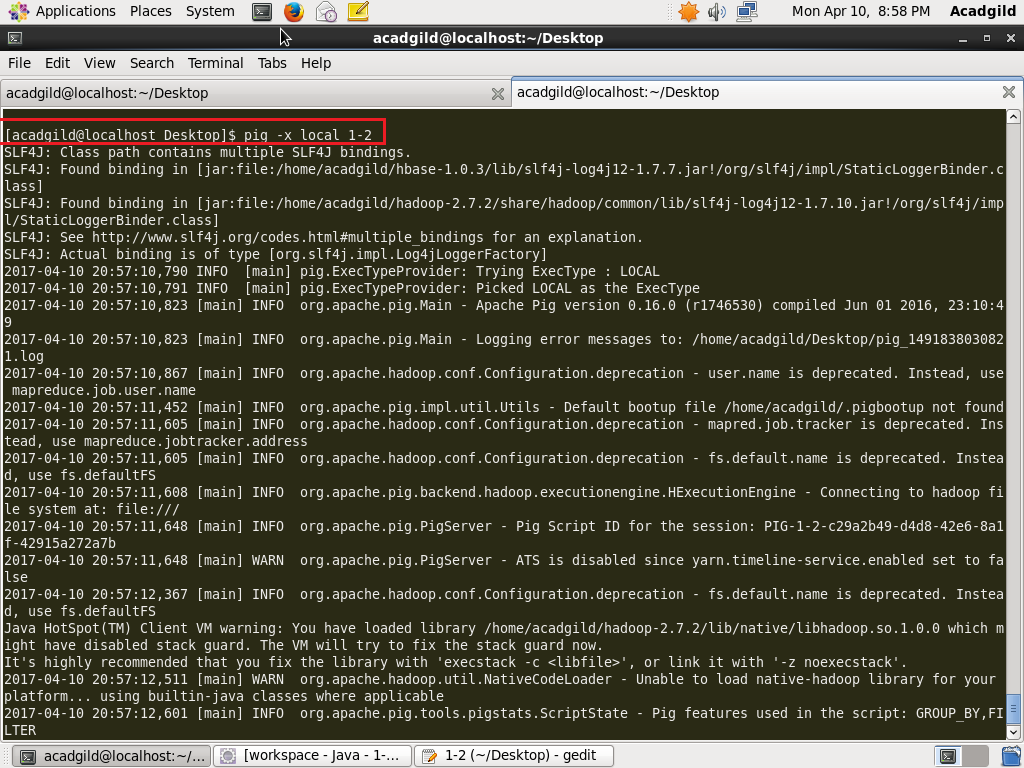
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**2. PIG:**

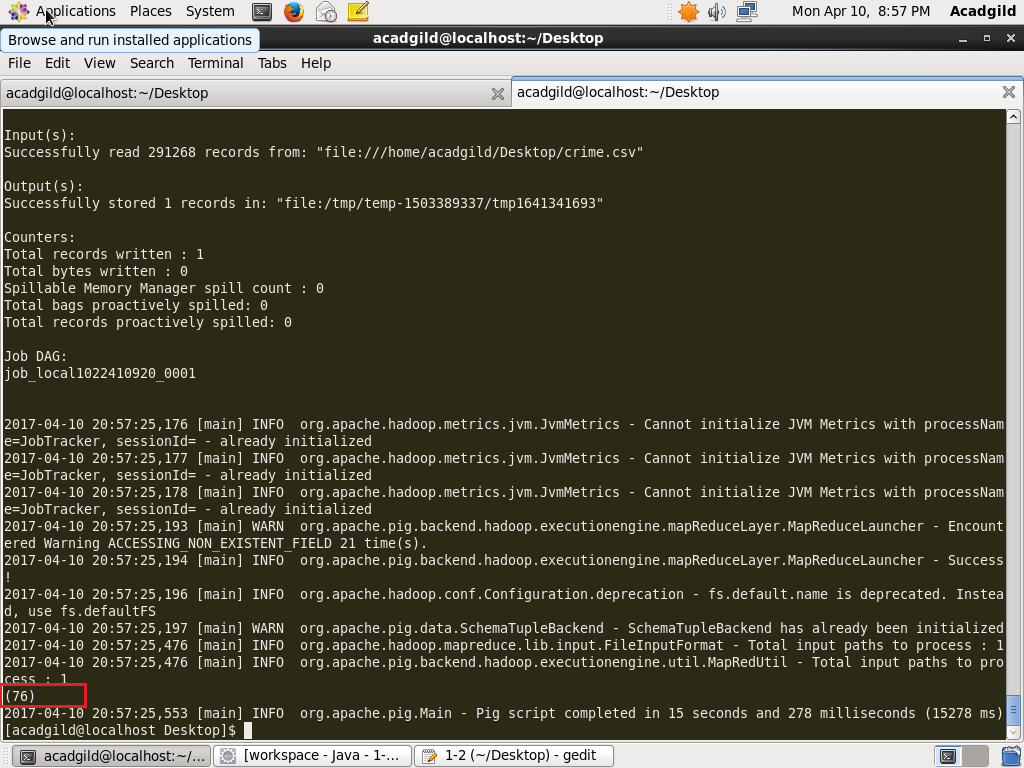
**PROGRAM:**

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**EXECUTION COMMAND:**

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**OUTPUT:**

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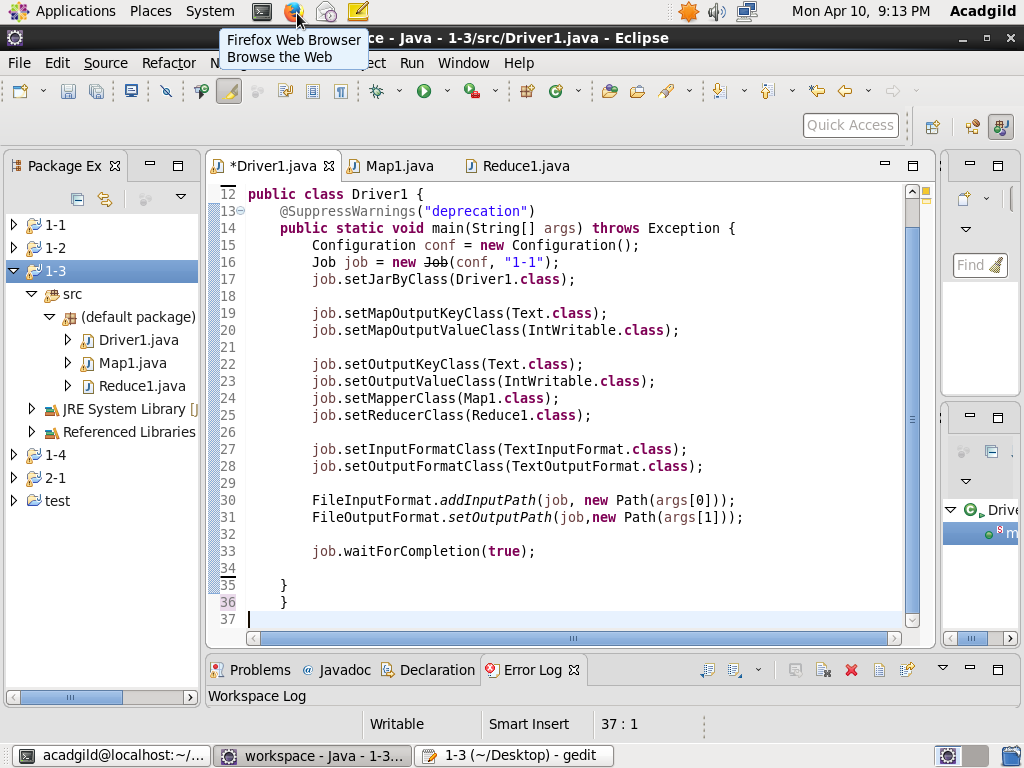
**Q3-Write a mapreduce and pig program to calculate the number of arrests in theft district wise.**

**SOLUTION:**

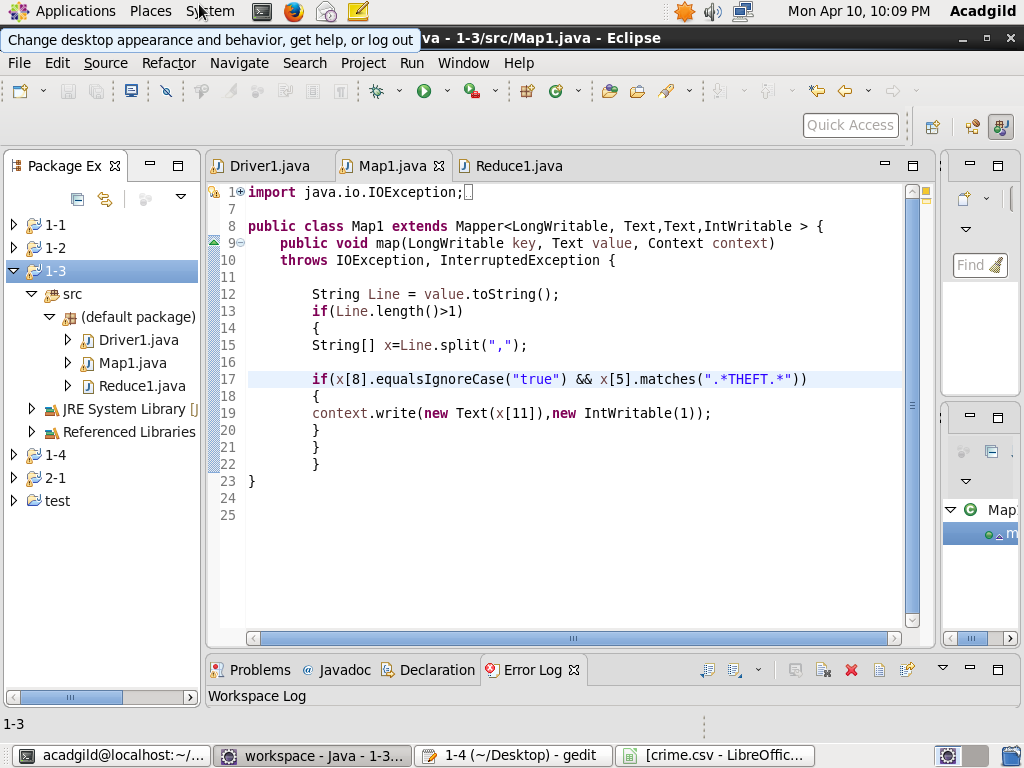
**1. MAP REDUCE:**

**PROGRAM:**

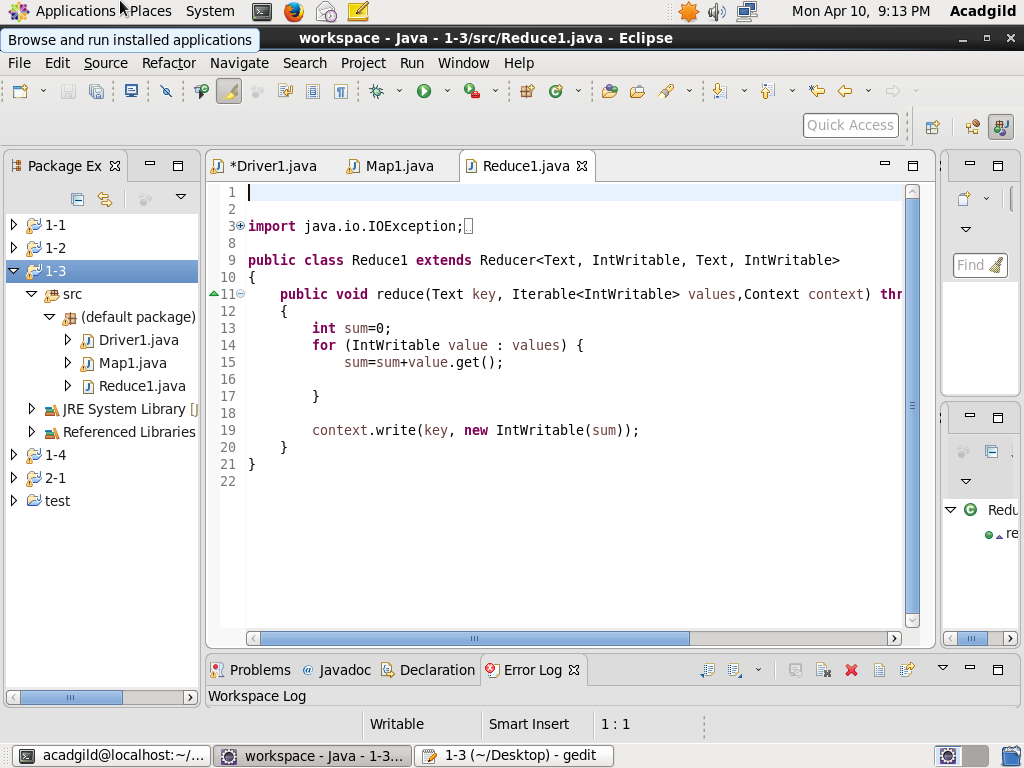
DRIVER CLASS



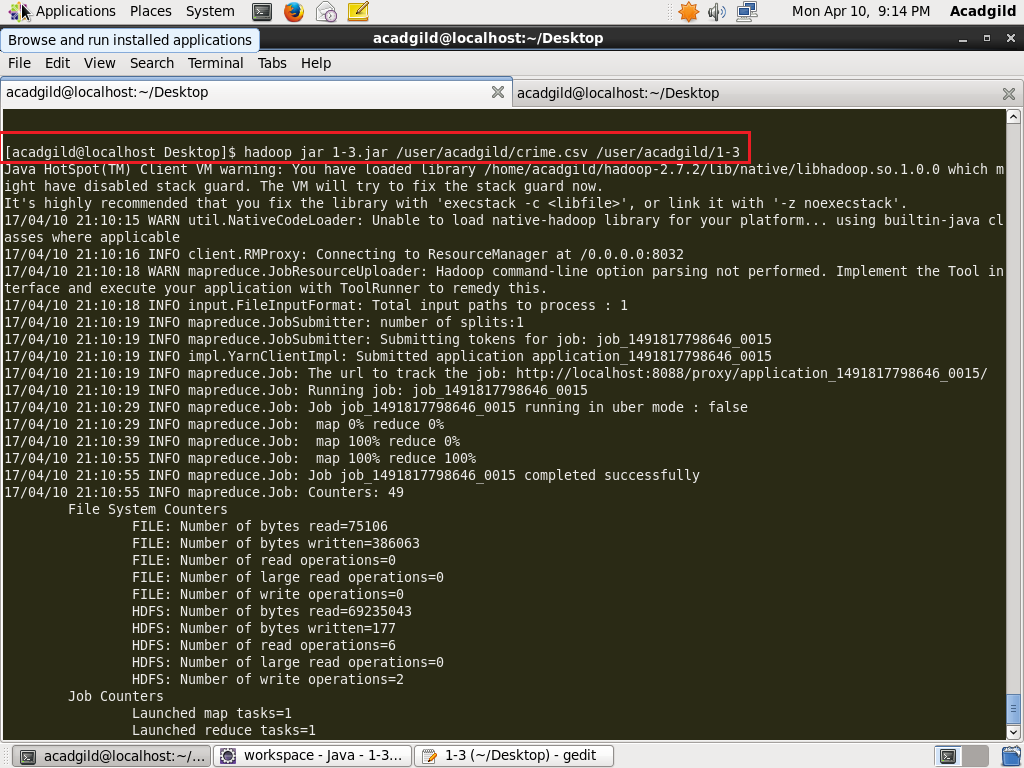
MAPPER CLASS



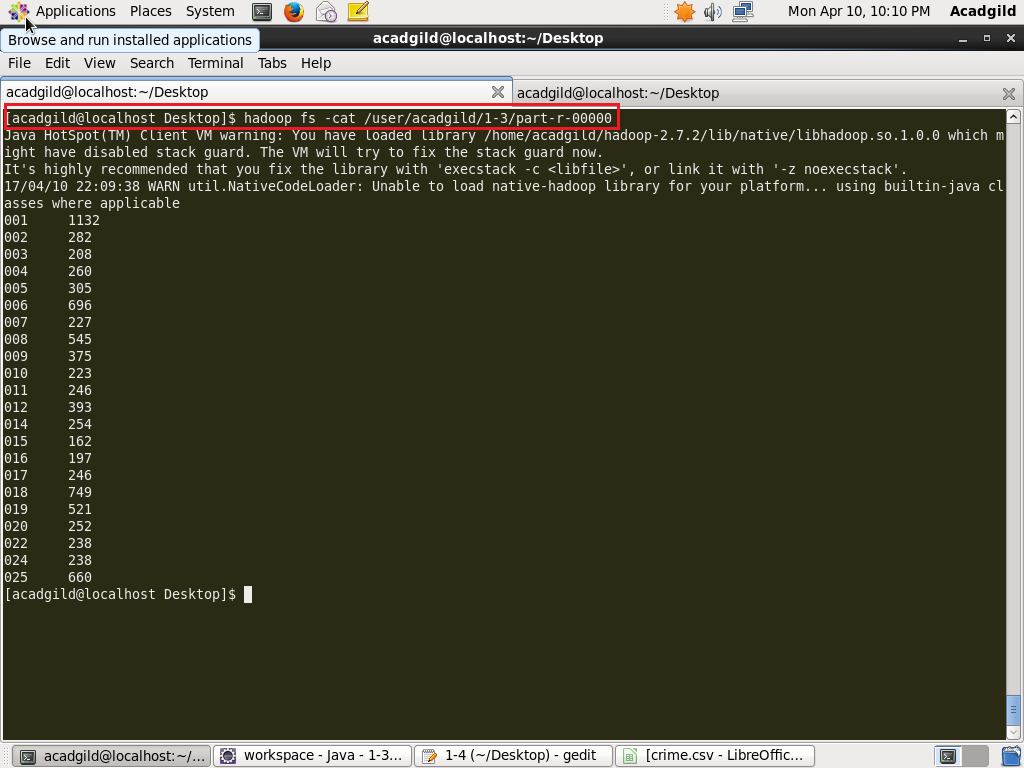
REDUCER CLASS



**EXECUTION COMMAND:**

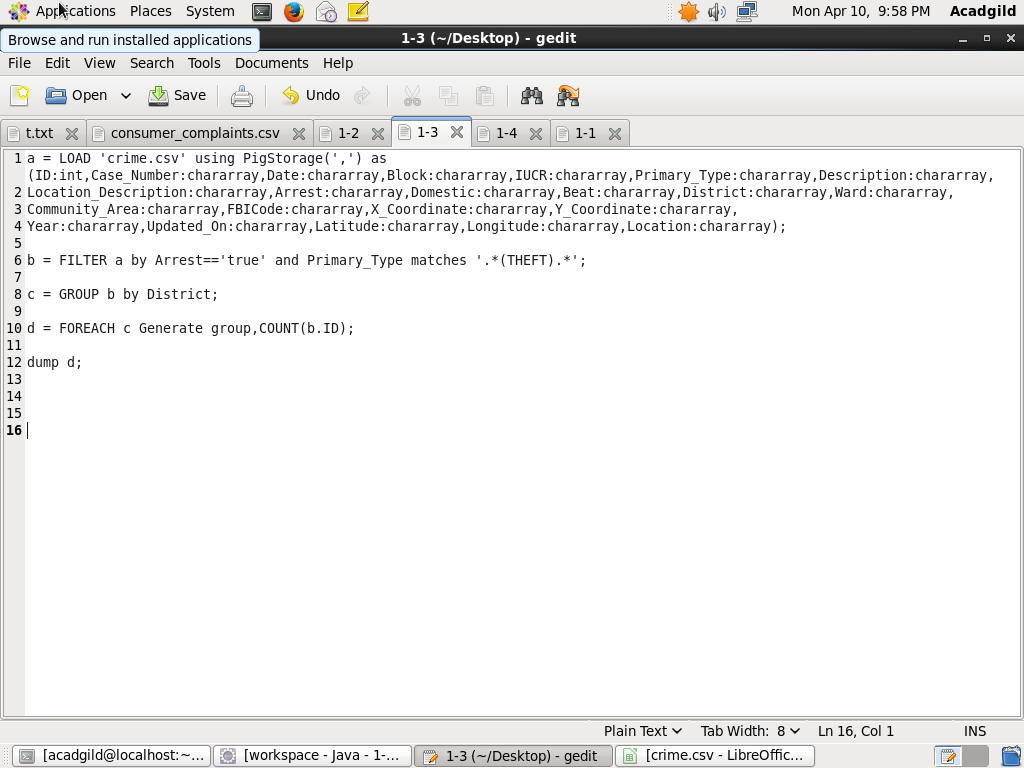
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**OUTPUT:**

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**2. PIG:**

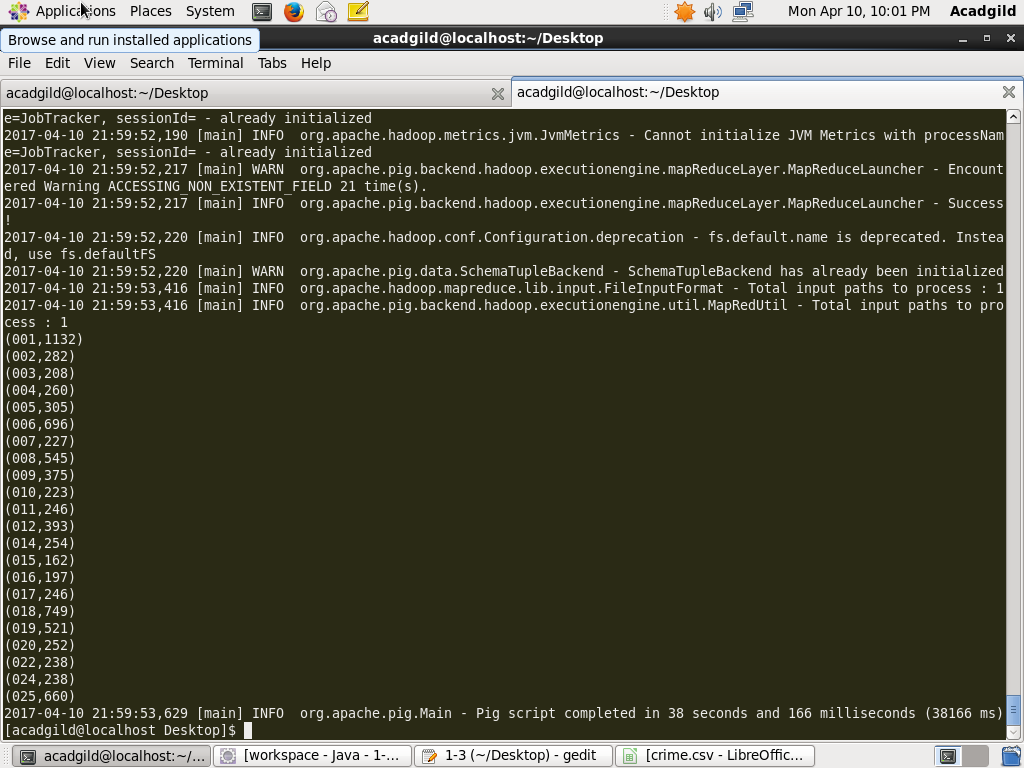
**PROGRAM:**

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**EXECUTION COMMAND:**

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**OUTPUT:**

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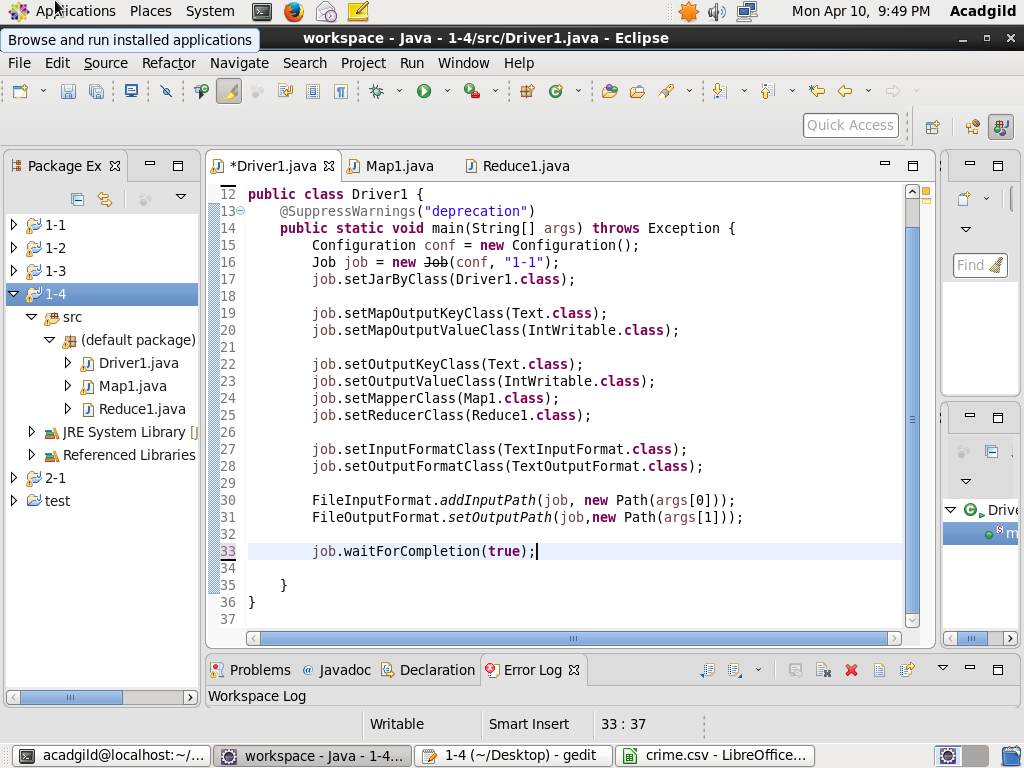
**Q4-Write a mapreduce and pig program to calculate the number of arrests done between October 2014 and October 2015.**

**SOLUTION:**

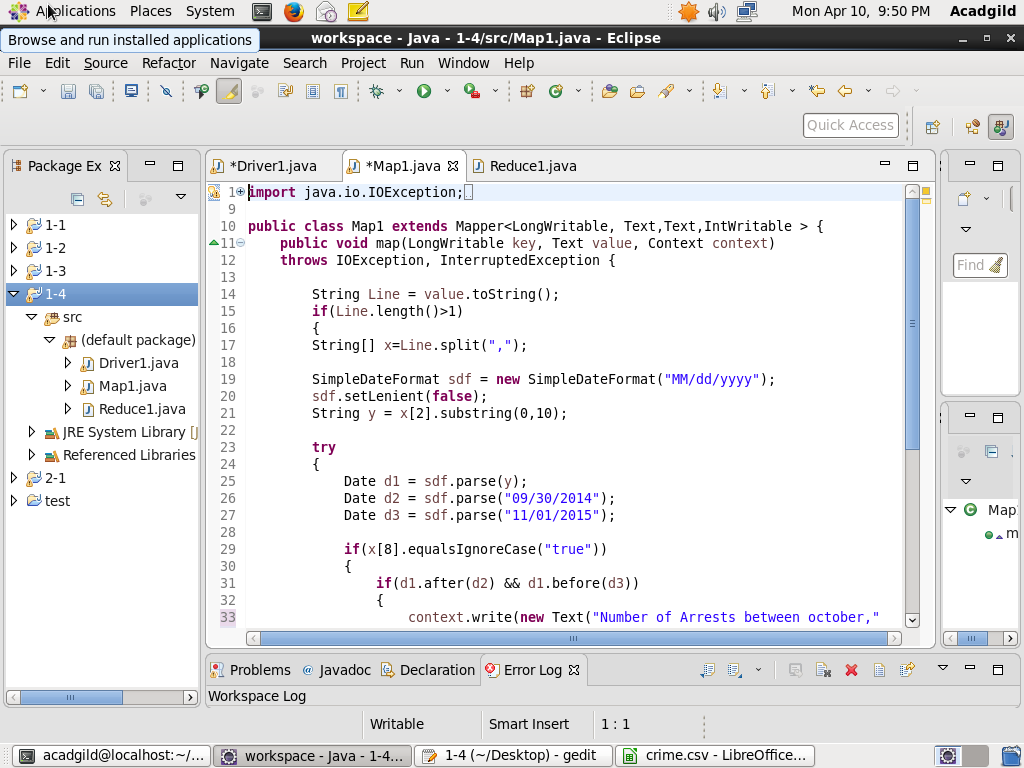
**1. MAP REDUCE:**

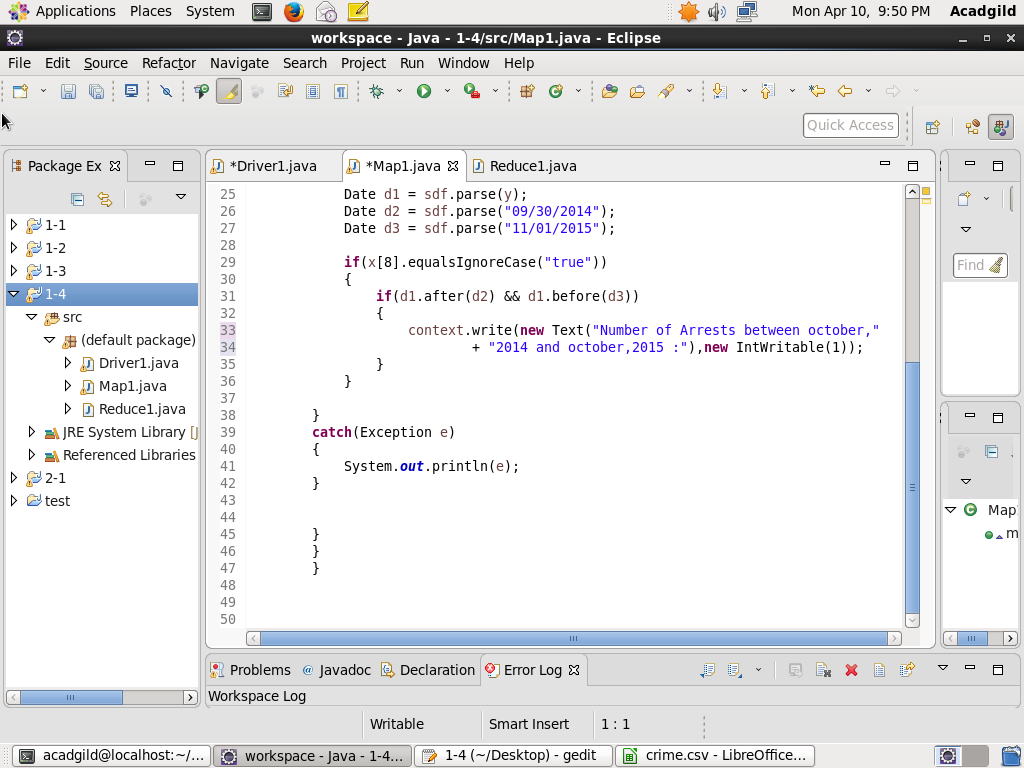
**PROGRAM:**

DRIVER CLASS

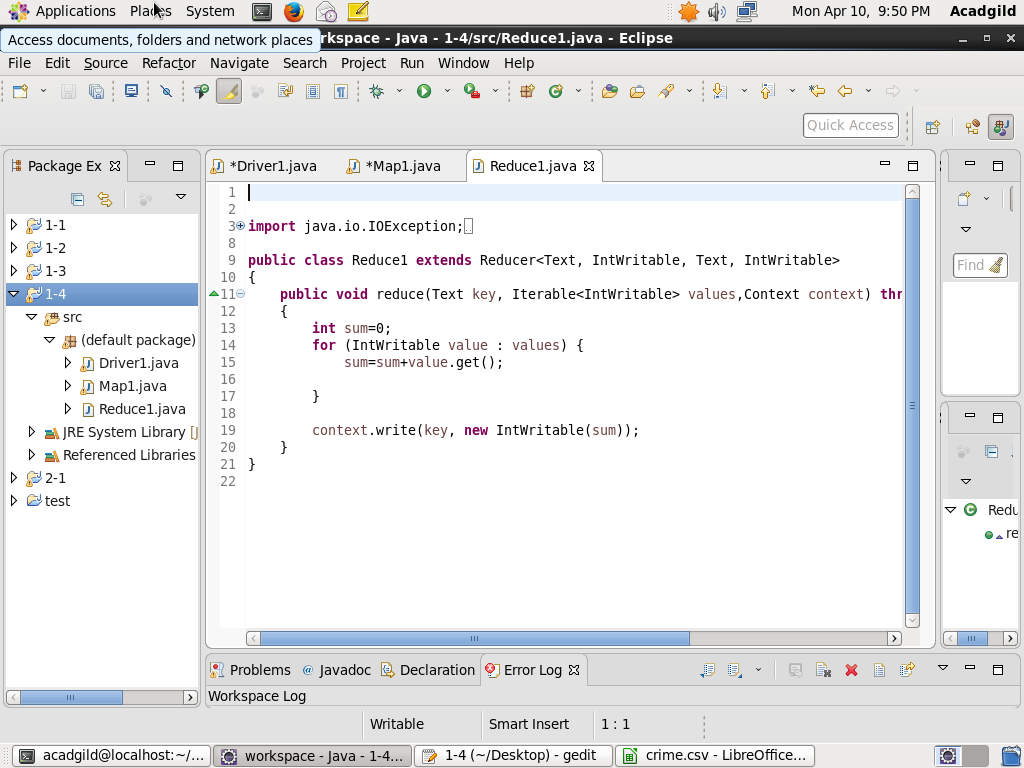


MAPPER CLASS

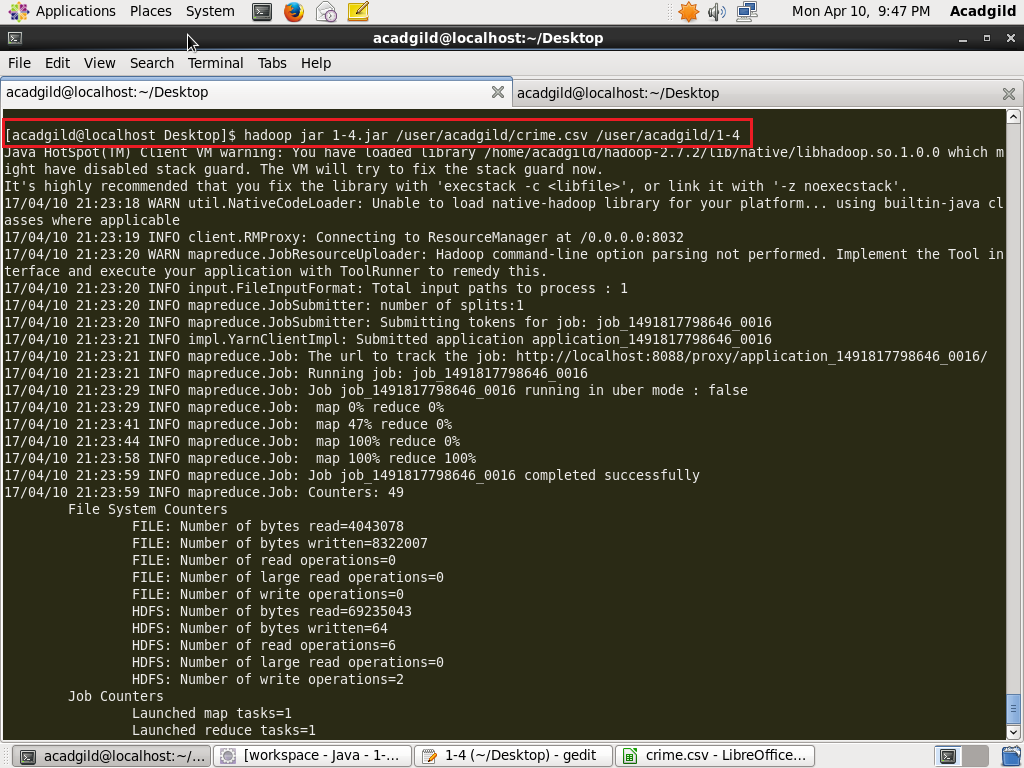


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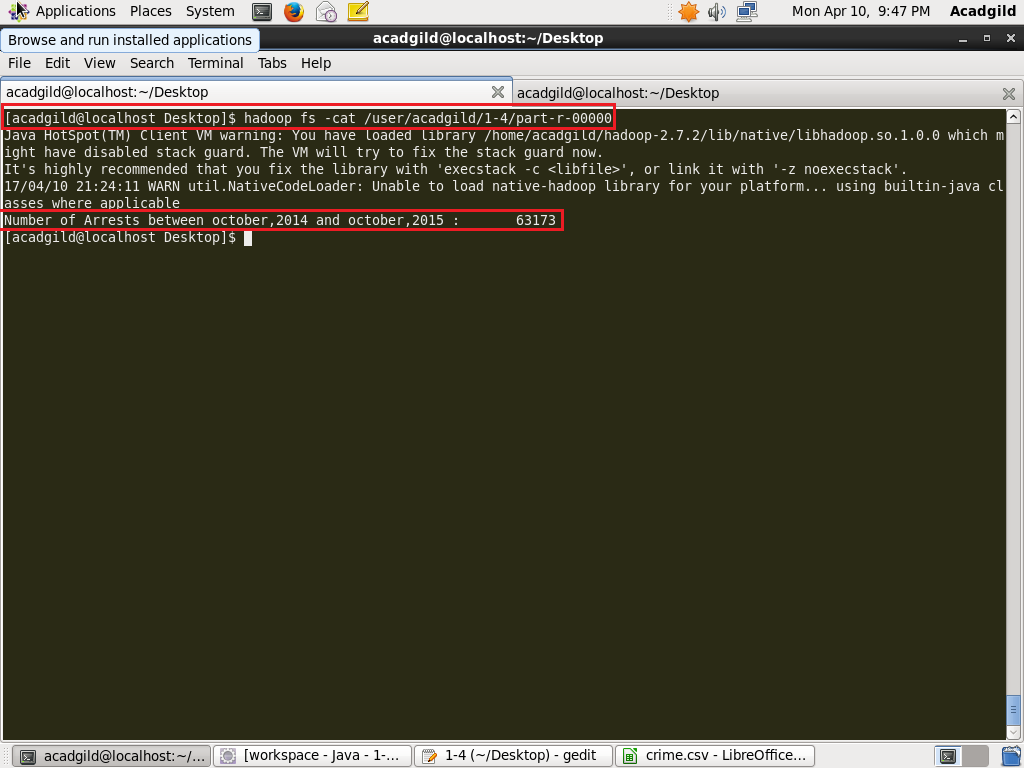
REDUCER CLASS



**EXECUTION COMMAND:**

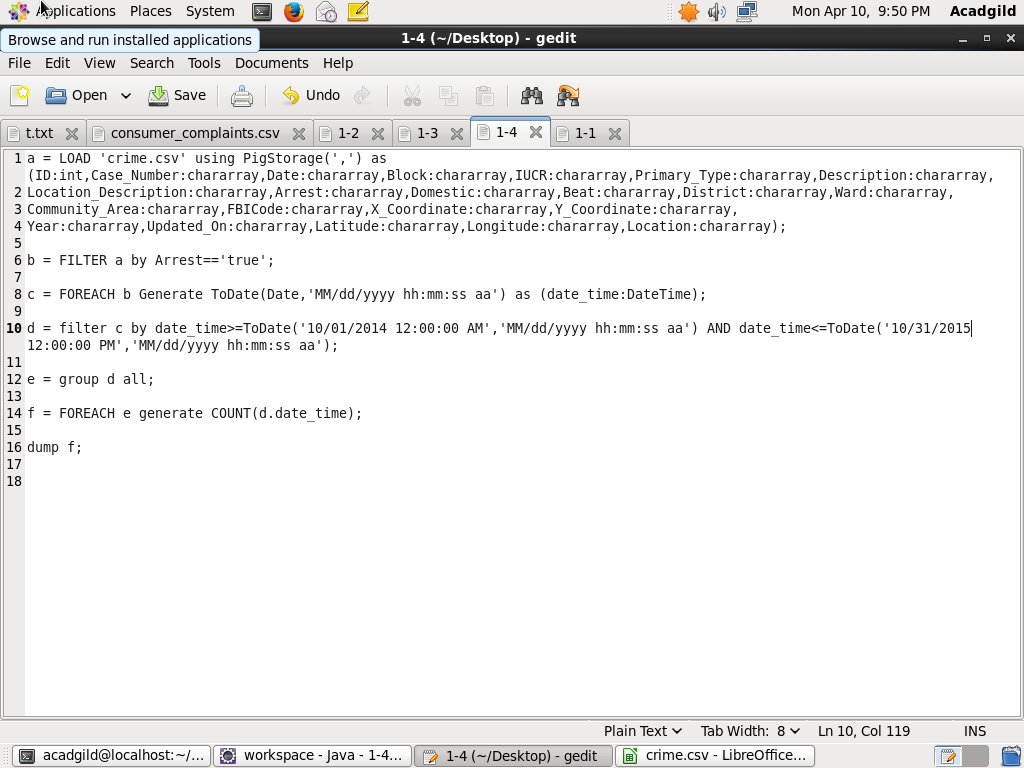
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**OUTPUT:**

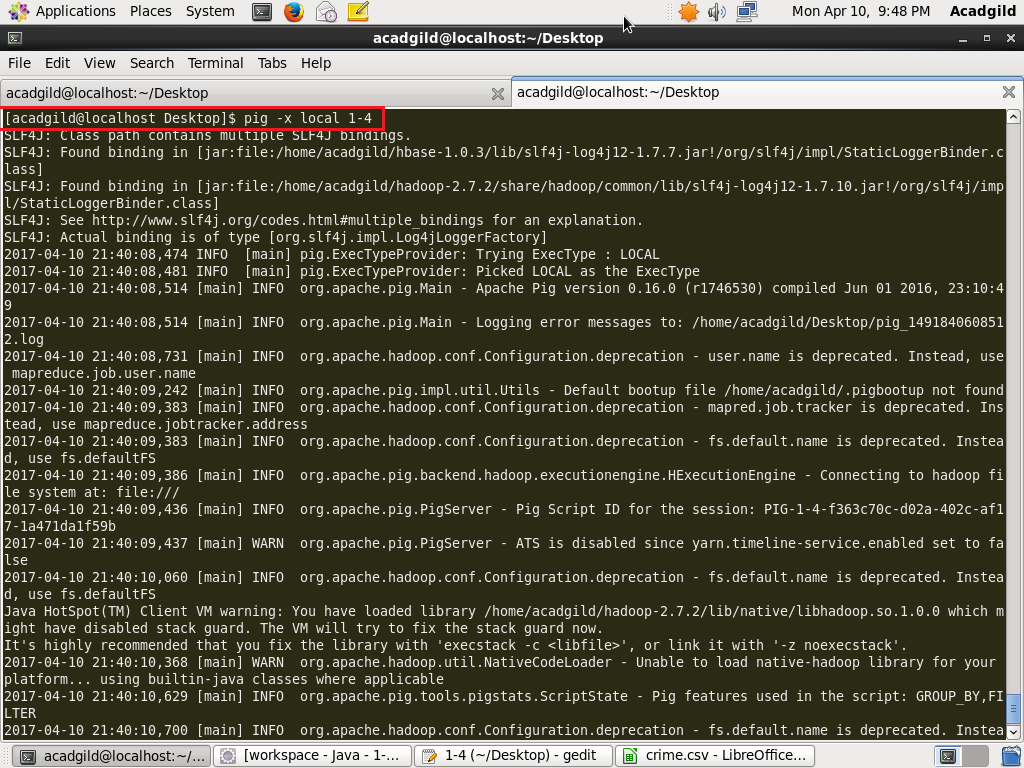
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**2. PIG**

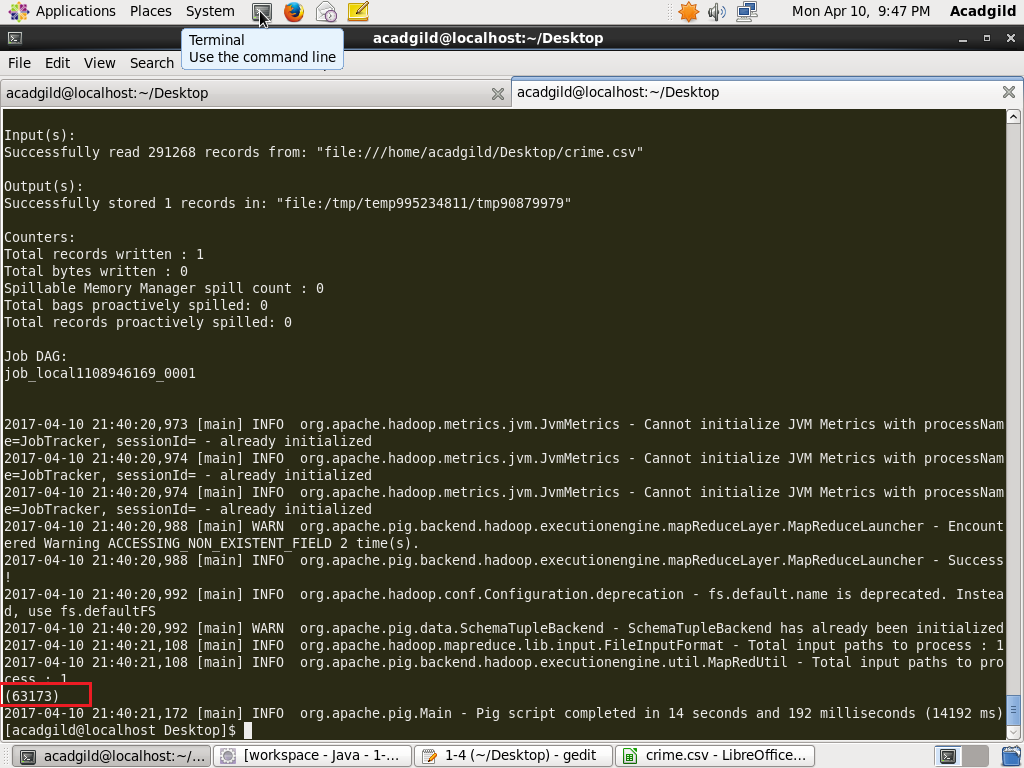
**PROGRAM:**

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**EXECUTION COMMAND:**

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**OUTPUT:**

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