## Example 03: Database Management System

- 1. Consider the following Insurance database with these relations.
  - (i) person (<u>nid</u>, name, address)
  - (ii) car (<u>license</u>, year, model)
  - (iii) accident (<u>date</u>, <u>driver</u>, damage-amount)
  - (iv)owns (nid, license)
  - (v) log (<u>license</u>, <u>date</u>, <u>driver</u>)
  - a) Insert the following data into those relations

| Person     |        |            |  |
|------------|--------|------------|--|
| <u>nid</u> | name   | Address    |  |
| 123451     | Arif   | Rajshahi   |  |
| 123452     | Sumon  | Moynamati  |  |
| 123453     | Sagor  | Sirajgang  |  |
| 123454     | Abdul  | Rajshahi   |  |
| 123455     | Himesh | Dhaka      |  |
| 123456     | Amirul | Sylhet     |  |
| 123457     | Sajib  | Chittagang |  |

| Car            |      |            |  |  |
|----------------|------|------------|--|--|
| <u>license</u> | year | model      |  |  |
| 12-3000        | 2012 | Axio       |  |  |
| 11-3000        | 2008 | Corolla    |  |  |
| 12-4000        | 2013 | Axio       |  |  |
| 12-5000        | 2013 | Premio     |  |  |
| 11-5000        | 2010 | Nano       |  |  |
| 11-6000        | 2011 | Alto       |  |  |
| 12-6000        | 2015 | Nano Twist |  |  |

| accident    |               |          |  |  |  |
|-------------|---------------|----------|--|--|--|
| <u>date</u> | <u>driver</u> | d_amount |  |  |  |
| 12/01/2013  | Arif          | 10000    |  |  |  |
| 25/09/2015  | Komol         | 12000    |  |  |  |
| 20/06/2014  | Bahadur       | 11000    |  |  |  |
| 20/12/2011  | Abdul         | 8000     |  |  |  |
| 19/09/2015  | Akter         | 7000     |  |  |  |
| 15/05/2013  | Arif          | 20000    |  |  |  |
| 20/08/2014  | Arif          | 15000    |  |  |  |

| owns       |                |  |  |  |
|------------|----------------|--|--|--|
| <u>Nid</u> | <u>license</u> |  |  |  |
| 123451     | 11-3000        |  |  |  |
| 123452     | 12-4000        |  |  |  |
| 123453     | 12-5000        |  |  |  |
| 123454     | 11-5000        |  |  |  |
| 123455     | 11-6000        |  |  |  |
| 123456     | 12-6000        |  |  |  |
| 123457     | 12-3000        |  |  |  |

| Log            |             |               |  |  |
|----------------|-------------|---------------|--|--|
| <u>license</u> | <u>date</u> | <u>driver</u> |  |  |
| 11-3000        | 12/01/2013  | Arif          |  |  |
| 12-4000        | 25/09/2015  | Komol         |  |  |
| 11-6000        | 20/06/2014  | Bahadur       |  |  |
| 11-5000        | 20/12/2011  | Abdul         |  |  |
| 12-6000        | 19/09/2015  | Akter         |  |  |
| 11-3000        | 15/05/2013  | Arif          |  |  |
| 11-3000        | 20/08/2014  | Arif          |  |  |

- b) Find the names of all person who live in Rajshahi.
- c) Which model was sold in 2013?
- d) Find the name of those driver where damage amount is between 10000 and 15000.
- e) Find the national id (nid) of those person who has Axio.
- f) Find the name and address of those person who has Alto.
- g) Who (driver) was involved in the accident by 20/12/2011?
- h) Who was the owner of the car with license 12-4000?
- i) Who was the owner of the car whose driver is Arif?
- j) Which car was involved in accident by 19/09/2015?
- k) Find the number of accidents in which the cars belonging to "Arif" were involved.
- l) Find the dates of accidents in which the cars belonging to "Arif" were involved.
- m) Modify the database so that "Arif" now lives in Natore.