**1. Objectives**

a) To prepare Conceptual Design using ER Diagram

b) Prepare the relations

c) Normalize the relations up to 3NF

**2. Pre-requisites**

a) ER Diagram Concepts

b) Normal forms up to 3NF

c) Relational database concepts

**3. Skills/concepts**

ER Diagrams, Normalization

**4. Duration in hours**

5 hours

**5. Scenario set up**

Mr. Sourav mishra the proprietor of Big Bazaar was busy sitting in his supermarket and looking after his customers. He had manual Retail System and in order to improvise his business he wanted to automate his Retail System, so he approached Mr. Pratap C.E.O of Nityam Data warehousing. The next day morning Mr. Pratap arranged the meeting with the team from the Super Market and the team from Nityam computer services Ltd. Meeting concluded with the urgent need to manage all the employee details.

The major activities of **HR Department** are:-

1. Maintaining Employee information
2. Administration Department
3. Employee Recruitment
4. Shift management
5. Maintaining XMart information

Other than personal details the employees should have a facility to apply for leaves, transfers, promotions, ID card and also have a facility to view the status of leave request, transfer request, ID card requests, appraisal details, his monthly & yearly pay slips.

**The Administration Department** has many activities like

* Deciding the payroll parameters based on the designation of the employee, seniority.
* Deciding the roles of the employees based on the qualification, experience, generating employee ID and registering the employees.
* Generating the seniority list, granting the promotions.
* Accepting the transfer request.
* Maintaining allowance details, over time details.
* Granting bonus, giving awards to employees.

**Maintaining appraisal**

Recruitment section, recruits employees based on requirement. The recruitment team releases the notification, after receiving application forms they short list the candidates based on the qualification, experience. From that shortlist they recruit required number of employees through interview.

**Shift management team** maintains shifts, batches, shift holidays, batch holidays. Each shift contains 8 hrs working time, so many batches work in a shift. Each batch contains employees of all the departments. “

**Xmart team** maintains details of various XMart locations, branch information at that particular locations, department wise information of each branch, it also deals with establishing new branches”.

**6. Deliverables**

1) ER-diagram

2) Normalized tables.

**7. References**

http://hstslc007/eltplearning/RDBMSConcepts /index.html

*Fundamentals of database systems by Elmasri & Navathe*

*An introduction to DBMS by C.J.Date*

*Database management systems by Korth*