

# CS315:PROJECT

## Hall Management System

### Phase 3(Relation Design)

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## 1 Tables

### 1.1 Entity Sets

- Students (Email,Name,AccNo,Dept,HallNo,Rollno,Roomno,IP,PhoneNo,Laptop,BloodGrp,HomeAddr,GuardianName,MessBill,CanteenBill,Courier,ShopBill)
- StudentIssues (cid,CompEmail,StudComplaint)
- Employees (EmpID,Designation,PhoneNo,EmpEmail,AccNo,Name,Address)
- EmpIssues (ccid,CompEmpID,EmpComplaint)

### 1.2 Relationships

- havethese (Studcid,StudEmail)
- have (Empcid,EEmpID)

## 2 Normalization

The above set of tables are already in normalized form.

All the underlined items in each table functionally determine all other items and each underlined item is a *superkey*. Hence relation is in BCNF.

Initially in ER Diagram, there were 2 tables namely Students and StudDetails which have been merged into one due to 1-1 relationship.

## 3 Integrity Constraints

### 3.1 Students

Email:Primary Key

### 3.2 StudentIssues

cid:Primary Key

CompEmail: Foreign Key(Email from Students Table)

### **3.3 Employees**

EmpID:Primary Key

### **3.4 EmpIssues**

ccid:Primary Key

CompEmpID: Foreign Key(EmpID from Employees Table)

### **3.5 havethese**

Studcid:Primary Key, Foreign Key(cid from StudentIssues Table)

StudEmail: Foreign Key(Email from Students Table)

### **3.6 have**

Empcid:Primary Key, Foreign Key(ccid from EmpIssues Table)

EEmpID: Foreign Key(EmpID from Employees Table)