

## Test Case Generation:

### Black Box Testing

- 1: Equivalence Class Partitioning
- 2: Boundary Value Analysis
- 3: Cause Effect Graphing

### Equivalence Class Partitioning of Departments:

Equivalence Class	Test Domain	Test Data
EC1	Computer Science	0801cs101, 0801cs111, 0801cs134, 0801cs160
EC2	Electronics And Telecommunication	0801ec101, 0801ec145, 0801ec123, 0801ec167
EC3	Mechanical	0801me101,0801me107, 0801me133,0801me107
EC4	Industrial Production	0801ip101, 0801ip166, 0801ip134, 0801ip187
EC5	Civil	0801ce101, 0801ce111, 0801ce134, 0801ce160
EC6	Information Technology	0801it104, 0801it141, 0801it137, 0801it160
EC7	Electronics and Instrumentation	0801ei107, 0801ei101, 0801ei138, 0801ei169

### Equivalence Class Partitioning of Students:

Equivalence Class	Test Domain	Test Data
EC1	First Year	0801cs101, 0801me101, 0801ec134, 0801ce160
EC2	Second Year	0801it101, 0801ec111, 0801ip134, 0801ei130
EC3	Third Year	0801ec101, 0801ip111, 0801ei134, 0801cs160
EC4	Fourth Year	0801ei101,0801cs111, 0801ec134,0801me160

### Boundary Value analysis Of Departments:

Equivalence Class	Test Domain	Test Data
EC1	Computer Science	0801cs101, 0801cs111, 0801cs134, 0801cs160
EC2	Electronics And Telecommunication	0801ec101, 0801ec145, 0801ec123, 0801ec167
EC3	Mechanical	0801me101,0801me107, 0801me133,0801me107
EC4	Industrial Production	0801ip101, 0801ip166, 0801ip134, 0801ip187
EC5	Civil	0801ce101, 0801ce111, 0801ce134, 0801ce160
EC6	Information Technology	0801it104, 0801it141, 0801it137, 0801it160
EC7	Electronics and Instrumentation	0801ei107, 0801ei101, 0801ei138, 0801ei169

### Boundary Value analysis Of Students:

Equivalence Class	Test Domain	Test Data
EC1	First Year	0801cs101, 0801me101, 0801ec134, 0801ce160
EC2	Second Year	0801it101, 0801ec111, 0801ip134, 0801ei160
EC3	Third Year	0801ec101, 0801ip111, 0801ei134, 0801cs160
EC4	Fourth Year	0801ei101,0801cs111, 0801ec134,0801me160

(Note: Since Departments and Students year wise classification are mutually exclusive. So, there is no boundary value. Hence, class will be same as Equivalence Class partitioning. )

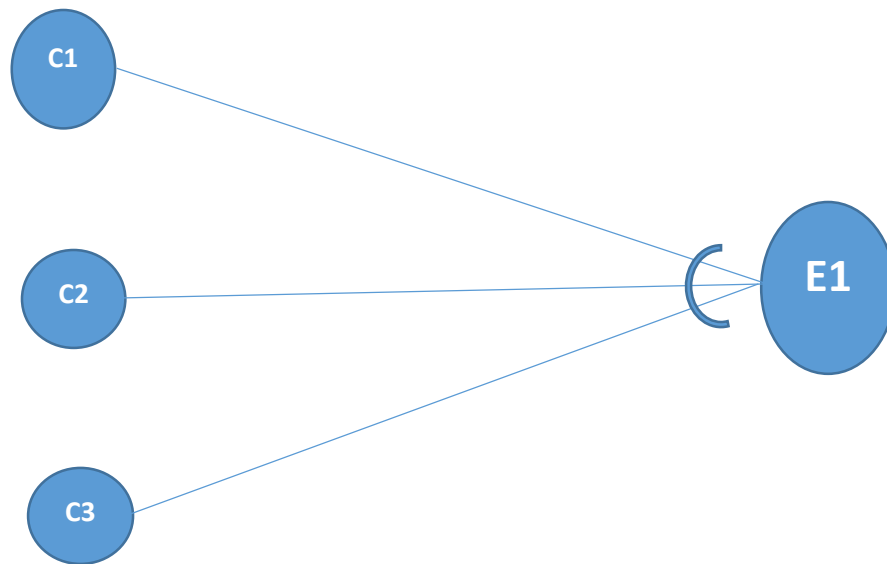
### Cause Effect Graphing of “Search Academic record of student”

Cause (ID)	Description
C1	Valid Membership
C2	User type is Teacher
C3	Valid Student id

Effect	Description
E1	Academic record of student is shown

### Cause-Effect Graph-

$$(E1=C1\wedge C2\wedge C3)$$



### Cause Effect Graphing of “To Change a password”

Cause (ID)	Description
C1	Valid Membership
C2	Verify Old password
C3	Confirm new password

Effect	Description
E1	Password Change Successfully

### Cause-Effect Graph-

$$(E1=C1\wedge C2\wedge C3)$$

