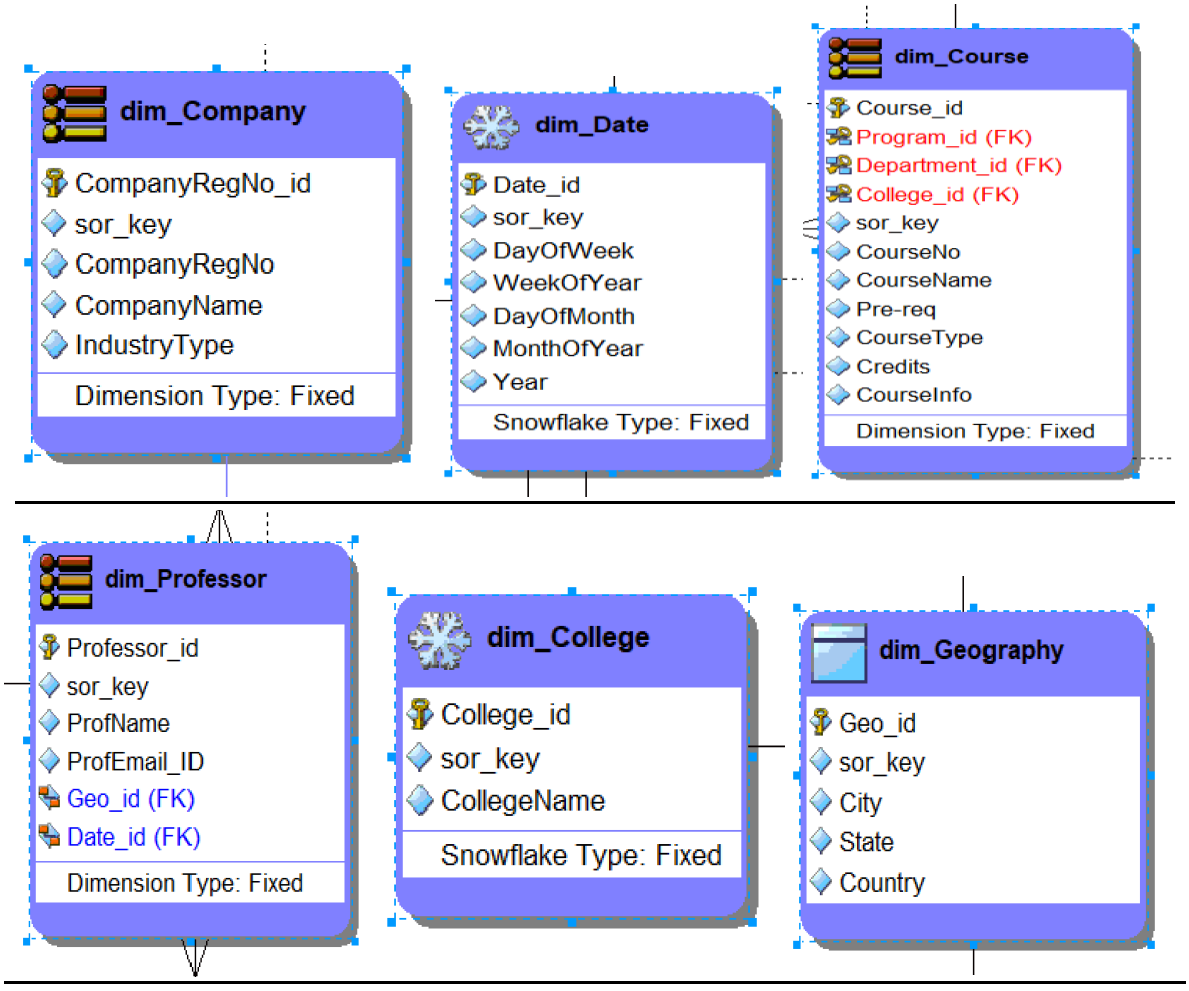
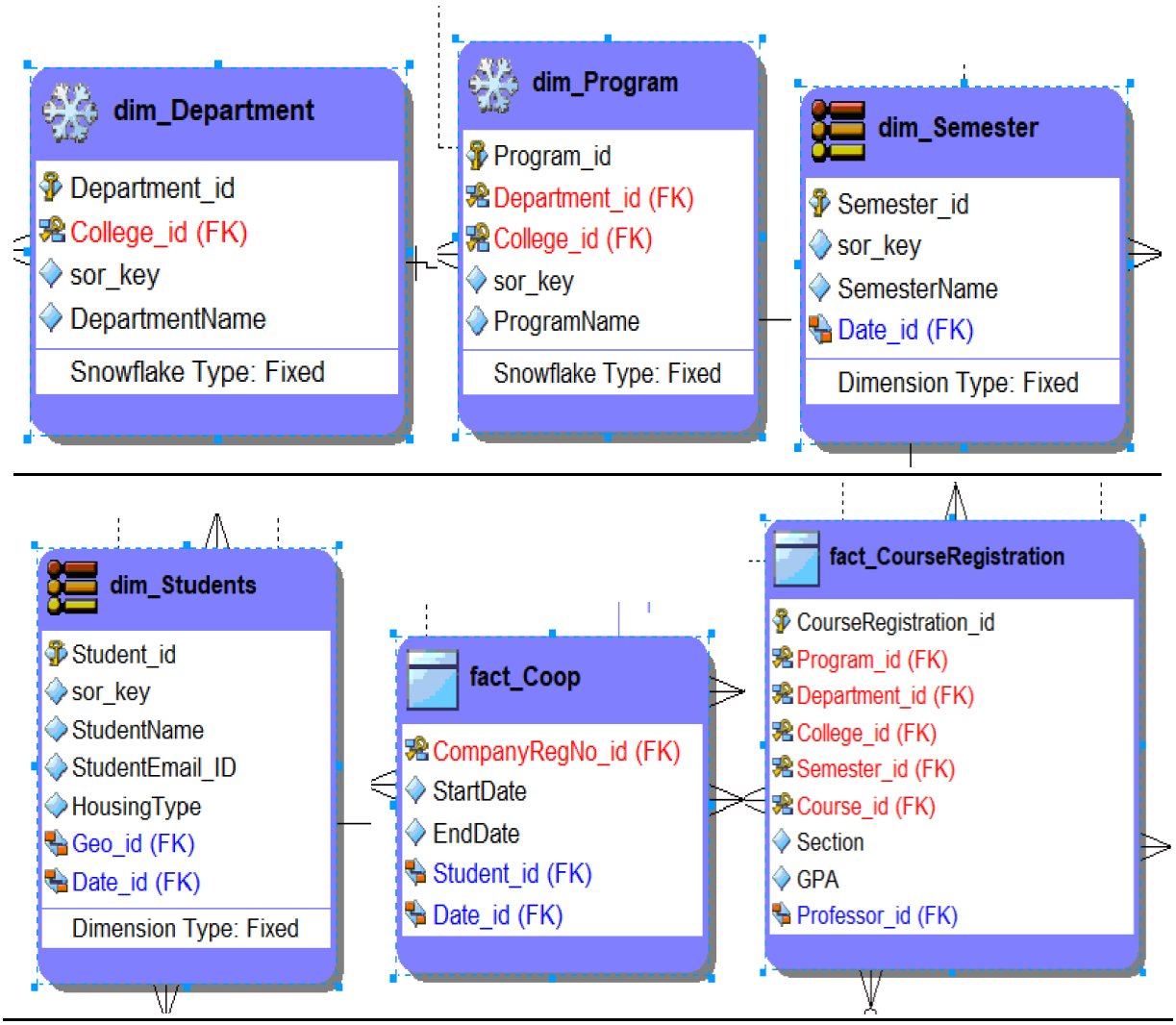
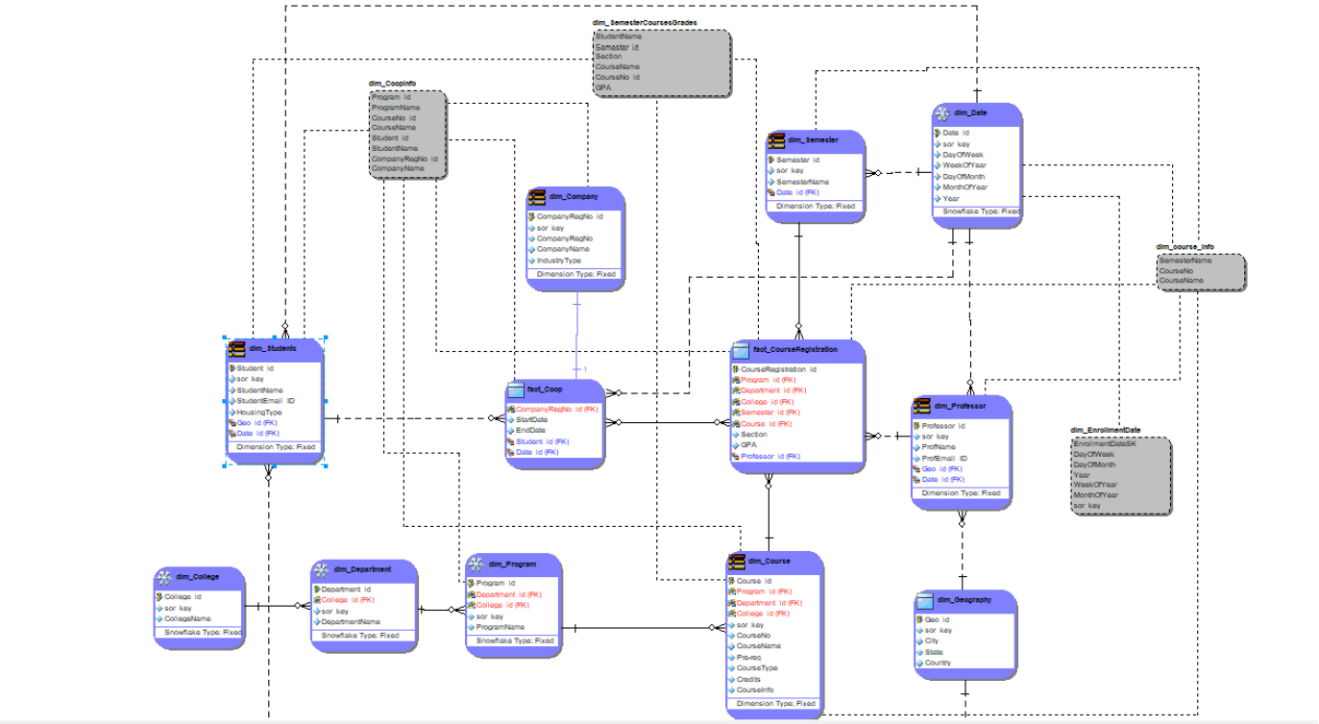
University Degree Program

Dimensions and Facts –

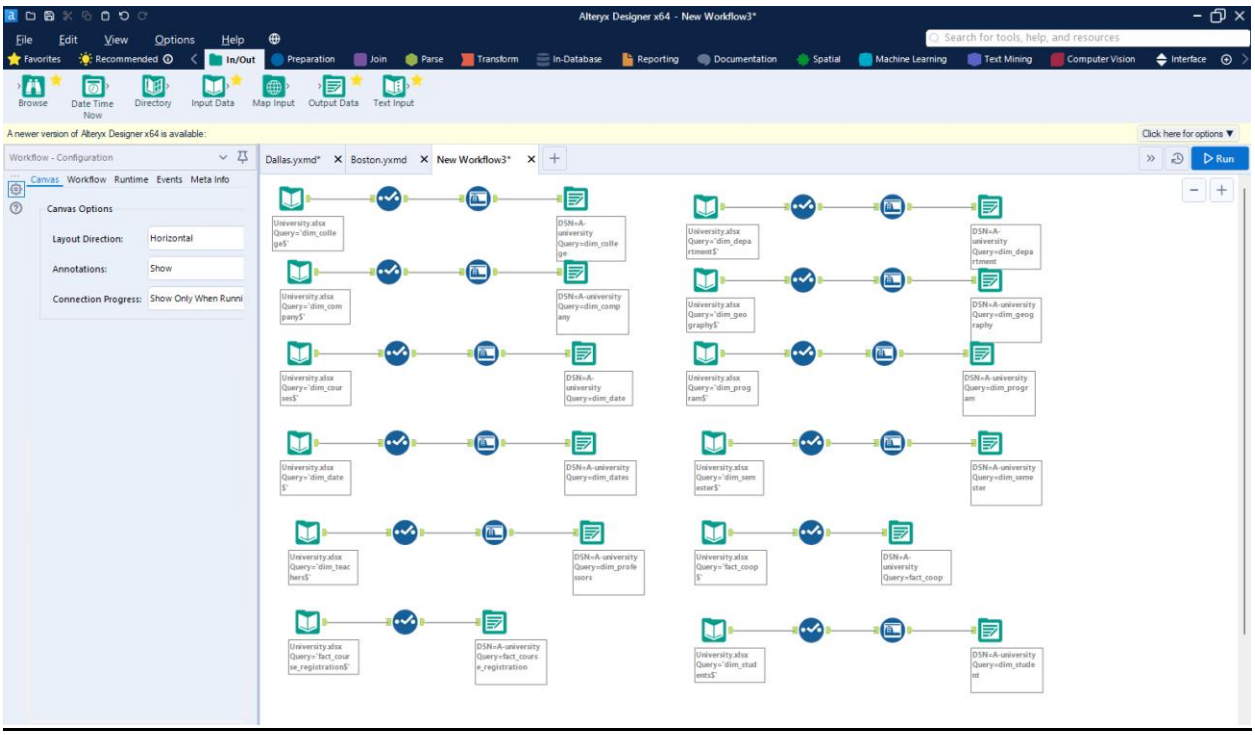



dim_Department
Department_id
College_id (FK)
sor_key
DepartmentName
Snowflake Type: Fixed
dim_Program
Program_id
Department_id (FK)
College_id (FK)
sor_key
ProgramName
Snowflake Type: Fixed
dim_Semester
Semester_id
sor_key
SemesterName
Date_id (FK)
Dimension Type: Fixed
dim_Students
Student_id
sor_key
StudentName
StudentEmail_ID
HousingType
Geo_id (FK)
Date_id (FK)
Dimension Type: Fixed
fact_Coop
CompanyRegNo_id (FK)
StartDate
EndDate
Student_id (FK)
Date_id (FK)
fact_CourseRegistration
CourseRegistration_id
Program_id (FK)
Department_id (FK)
College_id (FK)
Semester_id (FK)
Course_id (FK)
Section
GPA
Professor_id (FK)

Dimensional Data Model -



Alteryx Wokflow –



DDL –

```
--
-- ER/Studio Data Architect SQL Code Generation
-- Project :      University.DM1
--
-- Date Created : Friday, April 08, 2022 14:52:38
-- Target DBMS : MySQL 8.x
--


--
-- TABLE: dim_College
--

CREATE TABLE dim_College(
    College_id     INT           NOT NULL,
    sor_key        INT           NOT NULL,
    CollegeName    VARCHAR(50)    NOT NULL,
    PRIMARY KEY (College_id)
)ENGINE=MYISAM
;




--
-- TABLE: dim_Company
--

CREATE TABLE dim_Company(
    CompanyRegNo_id    INT           NOT NULL,
```

```
   sor_key          INT           NOT NULL,
   CompanyRegNo     INT           NOT NULL,
   CompanyName      VARCHAR(50),
   IndustryType     VARCHAR(50),
   PRIMARY KEY (CompanyRegNoSK)
)ENGINE=MYISAM
;



--
-- TABLE: dim_Course
--

CREATE TABLE dim_Course(
   Course_id     INT           NOT NULL,
   Program_id      INT           NOT NULL,
   Department_id    INT           NOT NULL,
   College_id      INT           NOT NULL,
   sor_key         INT           NOT NULL,
   CourseNo        INT           NOT NULL,
   CourseName      VARCHAR(50)    NOT NULL,
   `Pre-req`       VARCHAR(50),
   CourseType      VARCHAR(50)    NOT NULL,
   Credits         INT           NOT NULL,
   CourseInfo      VARCHAR(45),
   PRIMARY KEY (CourseNoSK, Program_id, Department_id, College_id)
)ENGINE=MYISAM
;
```

```
--
-- TABLE: dim_Date
--

CREATE TABLE dim_Date(
    Date_id           INT        NOT NULL,
    sor_key           CHAR(10),
    DayOfWeek         INT        NOT NULL,
    WeekNumberOfYear  INT        NOT NULL,
    DayOfMonth        INT        NOT NULL,
    MonthOfYear       INT        NOT NULL,
    Year              INT        NOT NULL,
    PRIMARY KEY (Date_id)
)ENGINE=MYISAM
;



--
-- TABLE: dim_Department
--

CREATE TABLE dim_Department(
    Department_id     INT          NOT NULL,
    College_id        INT          NOT NULL,
    sor_key           INT          NOT NULL,
```

```
   DepartmentName    VARCHAR(50)    NOT NULL,
   PRIMARY KEY (Department_id, College_id)
)ENGINE=MYISAM
;



--
-- TABLE: dim_Geography
--

CREATE TABLE dim_Geography(
   Geo_id     INT           NOT NULL,
   sor_key    CHAR(10),
   City       VARCHAR(50)    NOT NULL,
   State      VARCHAR(50)    NOT NULL,
   Country    VARCHAR(50)    NOT NULL,
   PRIMARY KEY (Geo_id)
)ENGINE=MYISAM
;



--
-- TABLE: dim_Professor
--

CREATE TABLE dim_Professor(
   Professor_id    INT           NOT NULL,
```

```
   sor_key        INT           NOT NULL,
   ProfName       CHAR(10),
   ProfEmail_ID   VARCHAR(50)   NOT NULL,
   Geo_id         INT           NOT NULL,
   Date_id        INT           NOT NULL,
   PRIMARY KEY (Professor_id)
)ENGINE=MYISAM
;



--
-- TABLE: dim_Program
--

CREATE TABLE dim_Program(
   Program_id      INT           NOT NULL,
   Department_id   INT           NOT NULL,
   College_id      INT           NOT NULL,
   sor_key         INT           NOT NULL,
   ProgramName     VARCHAR(50)   NOT NULL,
   PRIMARY KEY (Program_id, Department_id, College_id)
)ENGINE=MYISAM
;



--
-- TABLE: dim_Semester
```

```
--

CREATE TABLE dim_Semester(
   Semester_id     INT          NOT NULL,
   sor_key         INT          NOT NULL,
   SemesterName    VARCHAR(50)    NOT NULL,
   Date_id         INT          NOT NULL,
   PRIMARY KEY (Semester_id)
)ENGINE=MYISAM
;




--
-- TABLE: dim_Students
--

CREATE TABLE dim_Students(
   Student_id        INT          NOT NULL,
   sor_key           INT          NOT NULL,
   StudentName       VARCHAR(50)    NOT NULL,
   StudentEmail_ID   VARCHAR(30)    NOT NULL,
   HousingType       VARCHAR(40),
   Geo_id            INT          NOT NULL,
   Date_id           INT          NOT NULL,
   PRIMARY KEY (Student_id)
)ENGINE=MYISAM
;
```

```
--
-- TABLE: fact_Coop
--

CREATE TABLE fact_Coop(
    CompanyRegNo_id    INT     NOT NULL,
    StartDate          DATE    NOT NULL,
    EndDate            DATE    NOT NULL,
    Student_id         INT     NOT NULL,
    Date_id            INT     NOT NULL,
    PRIMARY KEY (CompanyRegNo_id)
)ENGINE=MYISAM
;



--
-- TABLE: `fact_Coop fact_CourseRegistration`
--

CREATE TABLE `fact_Coop fact_CourseRegistration`(
    CompanyRegNo_id          INT    NOT NULL,
    CourseRegistration_id    INT    NOT NULL,
    Program_id               INT    NOT NULL,
    Department_id            INT    NOT NULL,
    College_id               INT    NOT NULL,
    Semester_id              INT    NOT NULL,
```

```
   Course_id              INT    NOT NULL,

   PRIMARY KEY (CompanyRegNo_id, CourseRegistration_id, Program_id, Department_id, College_id,
Semester_id, Course_id)

)ENGINE=MYISAM

;




--

-- TABLE: fact_CourseRegistration

--


CREATE TABLE fact_CourseRegistration(

   CourseRegistration_id    INT           NOT NULL,

   Program_id               INT           NOT NULL,

   Department_id            INT           NOT NULL,

   College_id               INT           NOT NULL,

   Semester_id              INT           NOT NULL,

   Course_id                INT           NOT NULL,

   Section                  VARCHAR(50),

   GPA                      INT           NOT NULL,

   Professor_id             INT           NOT NULL,

   PRIMARY KEY (CourseRegistration_id, Program_id, Department_id, College_id, Semester_id,
Course_id)

)ENGINE=MYISAM

;
```

```
--
-- TABLE: dim_Course
--

ALTER TABLE dim_Course ADD CONSTRAINT Refdim_Program26
   FOREIGN KEY (Program_id, Department_id, College_id)
   REFERENCES dim_Program(Program_id, Department_id, College_id)
;



--
-- TABLE: dim_Department
--

ALTER TABLE dim_Department ADD CONSTRAINT Refdim_College7
   FOREIGN KEY (College_id)
   REFERENCES dim_College(College_id)
;



--
-- TABLE: dim_Professor
--

ALTER TABLE dim_Professor ADD CONSTRAINT Refdim_Geography58
   FOREIGN KEY (Geo_id)
   REFERENCES dim_Geography(Geo_id)
;
```

```
ALTER TABLE dim_Professor ADD CONSTRAINT Refdim_Date60
   FOREIGN KEY (Date_id)
   REFERENCES dim_Date(Date_id)
;



--
-- TABLE: dim_Program
--

ALTER TABLE dim_Program ADD CONSTRAINT Refdim_Department6
   FOREIGN KEY (Department_id, College_id)
   REFERENCES dim_Department(Department_id, College_id)
;



--
-- TABLE: dim_Semester
--

ALTER TABLE dim_Semester ADD CONSTRAINT Refdim_Date59
   FOREIGN KEY (Date_id)
   REFERENCES dim_Date(Date_id)
;



--
-- TABLE: dim_Students
--
```

```
ALTER TABLE dim_Students ADD CONSTRAINT Refdim_Geography52
   FOREIGN KEY (Geo_id)
   REFERENCES dim_Geography(Geo_id)
;

ALTER TABLE dim_Students ADD CONSTRAINT Refdim_Date53
   FOREIGN KEY (Date_id)
   REFERENCES dim_Date(Date_id)
;



--
-- TABLE: fact_Coop
--

ALTER TABLE fact_Coop ADD CONSTRAINT Refdim_Company21
   FOREIGN KEY (CompanyRegNo_id)
   REFERENCES dim_Company(CompanyRegNo_id)
;

ALTER TABLE fact_Coop ADD CONSTRAINT Refdim_Students54
   FOREIGN KEY (Student_id)
   REFERENCES dim_Students(Student_id)
;

ALTER TABLE fact_Coop ADD CONSTRAINT Refdim_Date61
   FOREIGN KEY (Date_id)
   REFERENCES dim_Date(Date_id)
```

```
;



--
-- TABLE: `fact_Coop fact_CourseRegistration`
--

ALTER TABLE `fact_Coop fact_CourseRegistration` ADD CONSTRAINT Reffact_Coop62
   FOREIGN KEY (CompanyRegNo_id)
   REFERENCES fact_Coop(CompanyRegNo_id)
;

ALTER TABLE `fact_Coop fact_CourseRegistration` ADD CONSTRAINT Reffact_CourseRegistration63
   FOREIGN KEY (CourseRegistration_id, Program_id, Department_id, College_id, Semester_id,
Course_id)
   REFERENCES fact_CourseRegistration(CourseRegistration_id, Program_id, Department_id, College_id,
Semester_id, Course_id)
;



--
-- TABLE: fact_CourseRegistration
--

ALTER TABLE fact_CourseRegistration ADD CONSTRAINT Refdim_Course2
   FOREIGN KEY (Course_id, Program_id, Department_id, College_id)
   REFERENCES dim_Course(Course_id, Program_id, Department_id, College_id)
;
```

```
ALTER TABLE fact_CourseRegistration ADD CONSTRAINT Refdim_Semester23
   FOREIGN KEY (Semester_id)
   REFERENCES dim_Semester(Semester_id)
;

ALTER TABLE fact_CourseRegistration ADD CONSTRAINT Refdim_Professor30
   FOREIGN KEY (Professor_id)
   REFERENCES dim_Professor(Professor_id)
;
```