

WELCOME TO THE

ITI

Examination System

Graduation Project



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Overview

A comprehensive digital solution designed to automate the academic lifecycle, ensuring accuracy, efficiency, and scalability.

This project covers the full data cycle—from Database Design and ETL processing to Interactive Dashboards—serving four key pillars:

-  Academic Management: Streamlining complex relationships between Students, Courses, and Instructors using a highly normalized Database Design.
-  Assessment Automation: Providing a secure environment for automated exam generation and result processing.
-  Career Intelligence (Unique Feature): Bridging the gap between education and employment by tracking Student Freelance Jobs and Hiring Data.
-  Decision Support System: Empowering management with a Galaxy Schema Data Warehouse to visualize Intake Growth, Exam Quality, and Educational ROI.

This system doesn't just grade exams; it measures the career impact of the ITI education.

Tools & Technologies

HTML



CSS



JavaScript



Visual Studio



Microsoft
SQL Server



Power BI

Excel



Visual Studio Code

python™



ChatGPT



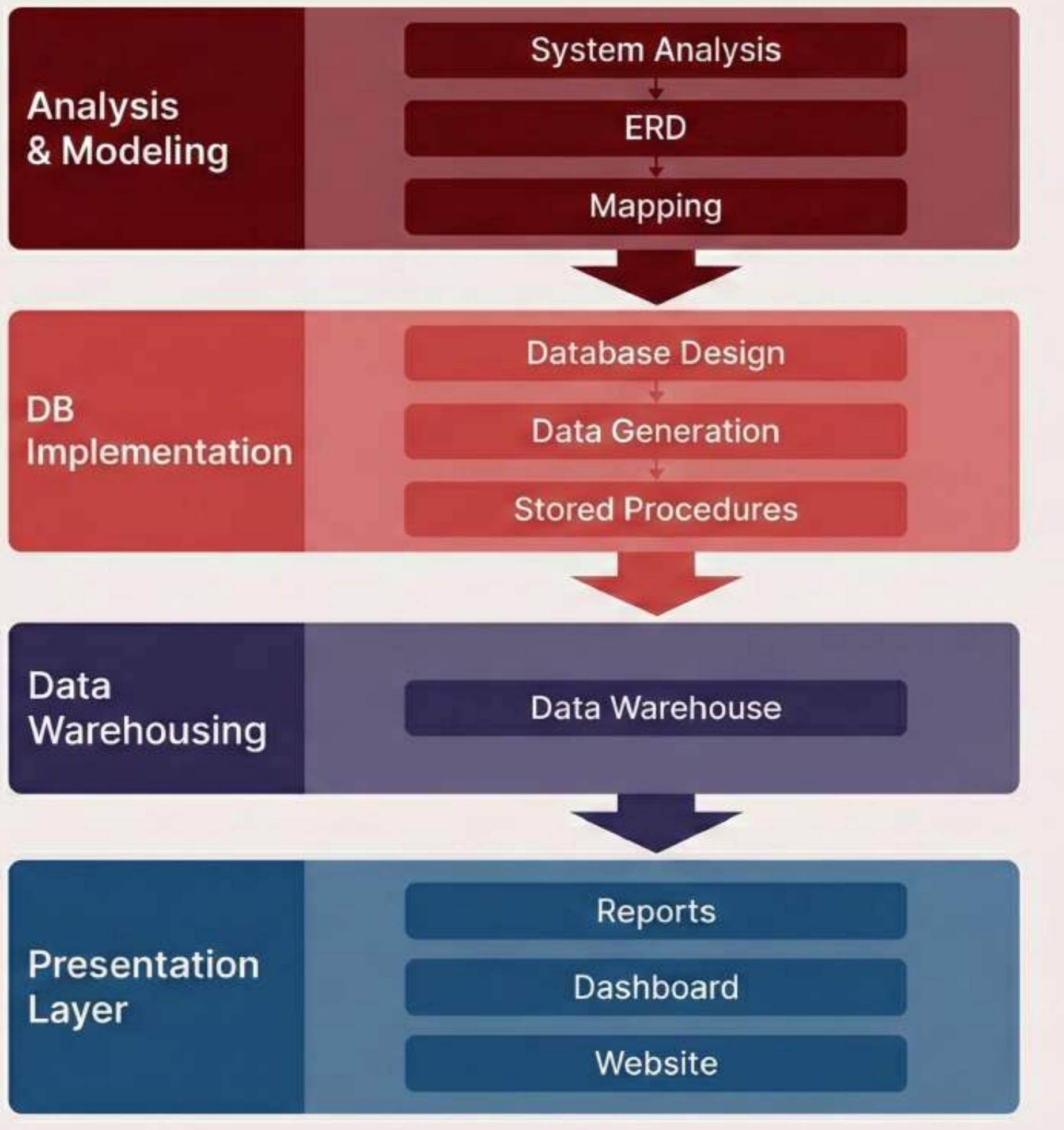
GitHub



Gemini



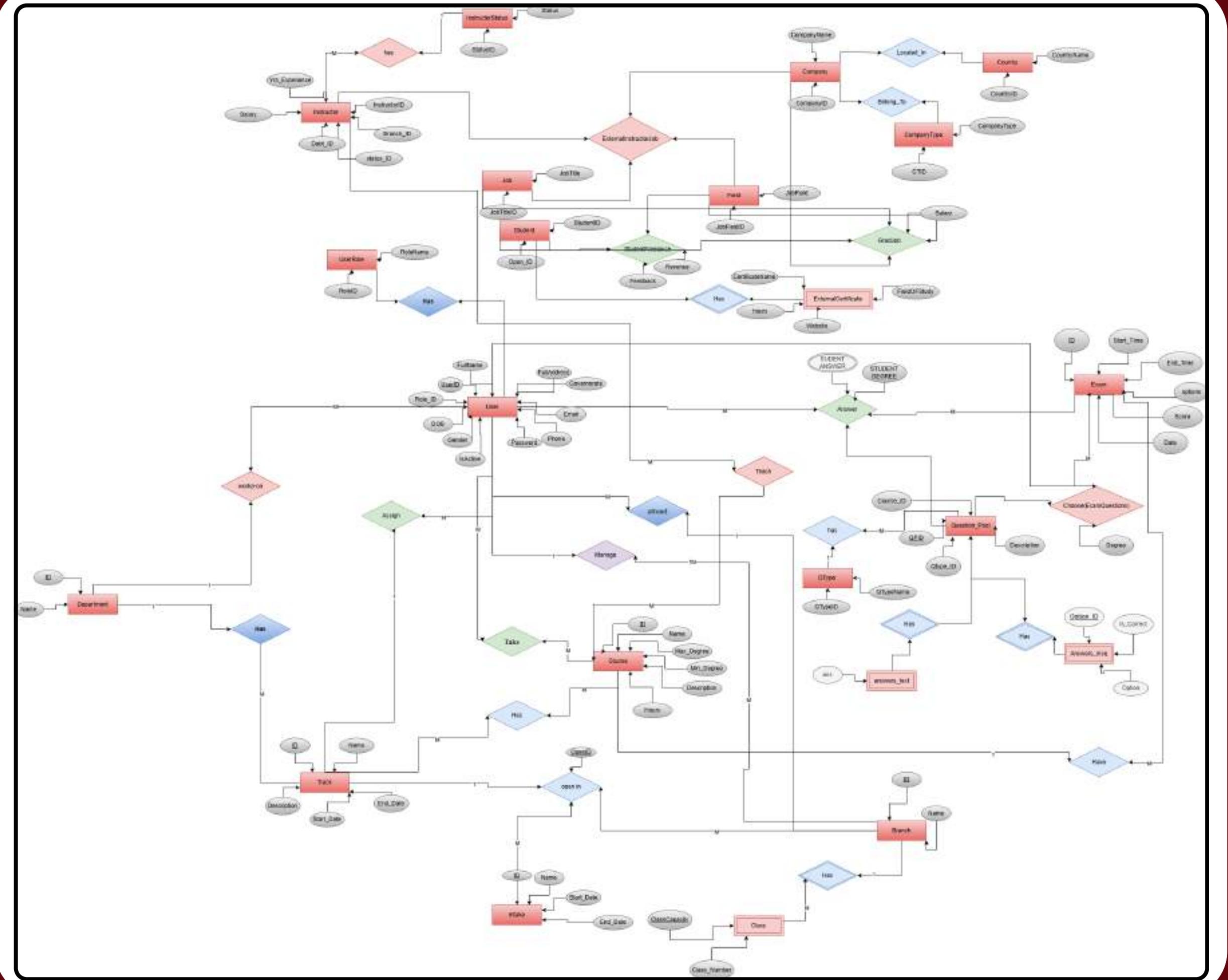
Project Workflow



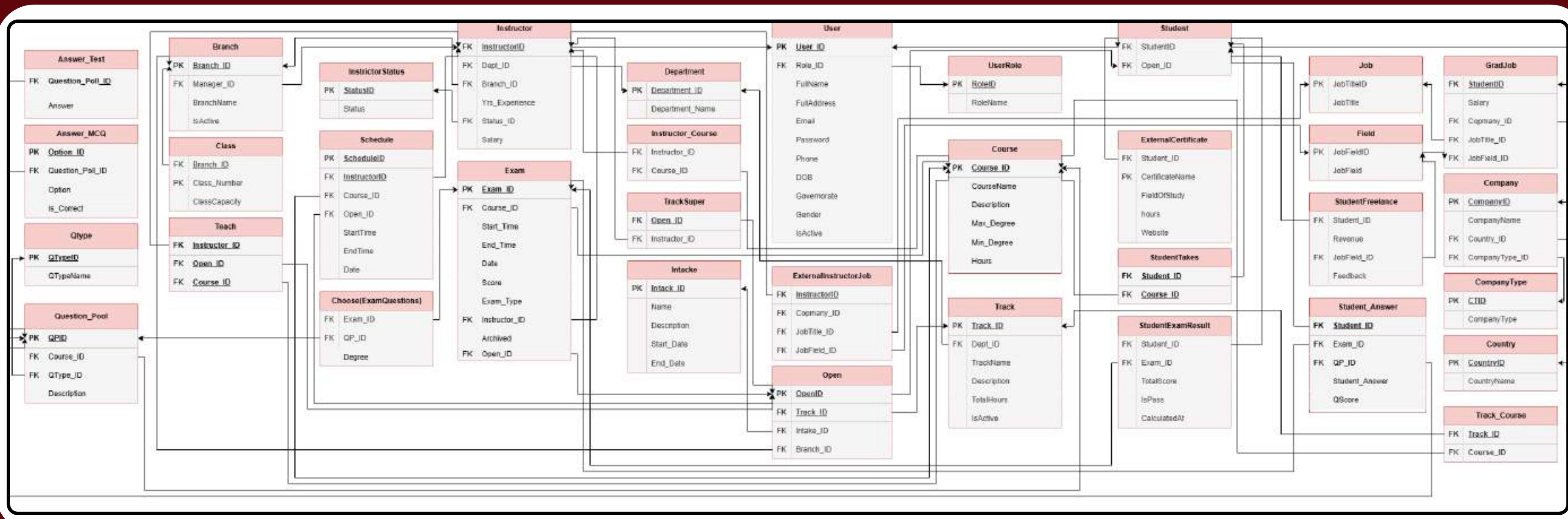
System Development & Data Workflow

This diagram outlines the end-to-end technical framework for the ITI Examination System. It illustrates the progression from initial analysis and data modeling, through database construction and warehousing, culminating in the delivery of actionable insights via the presentation layer.

ERD



Mapping



Database Creation

```
-- Create DB and use it
create database ITIExaminationSystem
go
use ITIExaminationSystem
go

-----
--Creating Support Tables

create table Governorate(
    GovID tinyint identity(1,1) primary key,
    GovName nvarchar(50) NOT NULL unique
);
go

create table UserRole(
    RoleID tinyint identity(1,1) PRIMARY KEY,
    RoleName NVARCHAR(11) NOT NULL UNIQUE,
    constraint CK_RoleName CHECK (RoleName IN ('Student', 'Instructor', 'Admin', 'Manager', 'CEO'))
);
go

create table Country(
    CountryID int identity(1,1) primary key,
    CountryName nvarchar(50) NOT NULL unique
);
go

create table CompanyType(
    CTID tinyint identity(1,1) primary key,
    CompanyType nvarchar(20) unique not null
);
go

create table Company(
    CompanyID int identity(1,1) primary key,
    CompanyName nvarchar(50) NOT NULL,
    Country_ID int NOT NULL,
    CompanyType_ID tinyint null,
    CONSTRAINT FK_Company_CountryID FOREIGN KEY (Country_ID) REFERENCES Country(CountryID),
    CONSTRAINT FK_Company_CompanyType FOREIGN KEY (CompanyType_ID) REFERENCES CompanyType(CTID)
);
```

```
create table MaritalStatus(
    MaritalStatID tinyint identity(1,1) PRIMARY KEY,
    MaritalStat NVARCHAR(9) NOT NULL UNIQUE,
    constraint CK_MaritalStat CHECK (MaritalStat IN ('Single', 'Engaged', 'Married', 'Divorced', 'Widowed'))
);
go

create table University(
    UniversityID int primary key,
    UniversityName nvarchar(50),
    Country_ID int not null,
    CONSTRAINT FK_University_Country FOREIGN KEY (Country_ID) REFERENCES Country(CountryID)
);
go

create table Faculty(
    FacultyID int primary key,
    FacultyName nvarchar(50)
);
go

create table JobType(
    JobTypeID tinyint identity(1,1) primary key,
    EmploymentType nvarchar(11),
    WorkMode nvarchar(7),
    constraint CK_EmpType CHECK (EmploymentType IN ('FullTime', 'PartTime', 'Internship')),
    constraint CK_Workmode CHECK (Workmode IN ('Onsite', 'Remote', 'Hybrid'))
);
go

create table Job(
    JobTitleID int identity(1,1) primary key,
    JobTitle nvarchar(50) not null unique
);
go

create table JobField(
    JobFieldID int identity(1,1) primary key,
    JobField nvarchar(50) not null unique
);
go
```

```
create table StudyField(
    StudyFieldID int identity(1,1) primary key,
    StudyFieldName nvarchar(50) not null unique
);
go

create table [Certificate](
    CertID int identity(1,1) primary key,
    CertName nvarchar(100) not null,
    [Hours] tinyint not null,
    Website nvarchar(100) not null,
    StudyField_ID int not null,
    constraint FK_Field_Cert foreign key(StudyField_ID) references StudyField(StudyFieldID)
);
go

create table Qtype(
    QTypeID tinyint identity(1,1) primary key,
    [Type] nvarchar(10) not null unique,
    CONSTRAINT CK_Qtype_Type CHECK ([Type] IN ('TrueFalse', 'MCQ', 'Text'))
);
go

-- Create Main Structure Tables

create table Department(
    DeptID tinyint identity(1,1) PRIMARY KEY,
    DeptName NVARCHAR(50) NOT NULL unique,
    IsActive bit NOT NULL Default 1
);
go

create table Track(
    TrackID tinyINT identity(1,1) PRIMARY KEY,
    TrackName NVARCHAR(50) NOT NULL unique,
    Dept_ID tinyint NOT NULL,
    TotalHours INT NULL,
    [Description] NVARCHAR(1000) NULL,
    IsActive bit NOT NULL Default 1,
    CONSTRAINT FK_Track_Dept FOREIGN KEY (Dept_ID) REFERENCES Department(DeptID)
);
go
```

```
create table Intake(
    IntakeID INT identity(1,1) PRIMARY KEY,
    IntakeName NVARCHAR(100) NOT NULL unique,
    StartDate DATE NOT NULL,
    EndDate DATE NOT NULL,
    IsActive BIT DEFAULT 1
);
go

create table Course(
    CourseID INT identity(1,1) PRIMARY KEY,
    CourseName NVARCHAR(200) NOT NULL,
    [Description] NVARCHAR(1000) NULL,
    [Hours] int NOT NULL,
    MaxDegree INT not NULL,
    MinDegree INT not NULL
);
go

create table Branch(
    BranchID tinyint identity(1,1) PRIMARY KEY,
    BranchName nVARCHAR(50) NOT NULL unique,
    Gov_ID tinyint not null,
    IsActive bit NOT NULL Default 1,
    constraint FK_Branch_Gov foreign key(Gov_ID) references Governorate(GovID)
);
go

create table [Class](
    Branch_ID tinyINT NOT NULL,
    ClassNumber NVARCHAR(10) NOT NULL,
    ClassCapacity tinyint not null,
    CONSTRAINT FK_Class_Branch FOREIGN KEY (Branch_ID) REFERENCES Branch(BranchID),
    CONSTRAINT PK_Class PRIMARY KEY (Branch_ID,ClassNumber)
);
go

create table TrackCourse(
    Track_ID tinyINT NOT NULL,
    Course_ID INT NOT NULL,
    CONSTRAINT PK_Track_Course PRIMARY KEY (Track_ID, Course_ID),
    CONSTRAINT FK_TrackCourse_Track FOREIGN KEY (Track_ID) REFERENCES Track(TrackID),
    CONSTRAINT FK_TrackCourse_Course FOREIGN KEY (Course_ID) REFERENCES Course(CourseID)
);
go
```

-- Create Users Tables

```
create table [User] (
    UserID INT identity(1,1) PRIMARY KEY,
    Role_ID tinyint NOT NULL,
    FullName NVARCHAR(60) NOT NULL,
    FullAddress nvarchar(200) NULL,
    Gov_ID tinyint NOT NULL,
    Email NVARCHAR(50) NOT NULL,
    [Password] NVARCHAR(25) NOT NULL,
    Phone NVARCHAR(13) null,
    DOB DATE NOT NULL,
    Gender char(1) NOT NULL,
    MaritalStatus_ID tinyint not null,
    NumKids tinyint not null,
    StartDate DATE NOT NULL,
    EndDate Date null,
    IsActive BIT NOT NULL DEFAULT 1,
    CONSTRAINT FK_User_Role FOREIGN KEY (Role_ID) REFERENCES UserRole(RoleID),
    CONSTRAINT FK_User_Gov FOREIGN KEY (Gov_ID) REFERENCES governorate(GovID),
    CONSTRAINT CK_gender_in CHECK (Gender in ('m', 'f')),
    constraint FK_User_MT foreign key(MaritalStatus_ID) references MaritalStatus(MaritalStatID)
);
go

create table BranchManager(
    ManagerID int,
    Branch_ID tinyint,
    YrsExp tinyint not null,
    Salary int not null,
    constraint PK_Manager_Branch primary key (ManagerID, Branch_ID),
    CONSTRAINT FK_Manager_User FOREIGN KEY (ManagerID) REFERENCES [User](UserID),
    constraint FK_Manager_Branch foreign key (Branch_ID) references Branch(BranchID)
);
go
```

```
create table [Admin](
    AdminID int primary key,
    Branch_ID tinyint,
    Salary int not null,
    CONSTRAINT FK_Admin_User FOREIGN KEY (AdminID) REFERENCES [User](UserID),
    constraint FK_Admin_Branch foreign key (Branch_ID) references Branch(BranchID)
);
go

create table Instructor (
    InstructorID int primary key,
    YrsExp tinyint not null,
    Salary int not null
);
go

create table FulltimeInstructor(
    InstructorID int primary key,
    Dept_ID tinyint not null,
    Branch_ID tinyint not null,
    CONSTRAINT FK_FTInstructor_User FOREIGN KEY (InstructorID) REFERENCES Instructor(InstructorID),
    CONSTRAINT FK_FTInstructor_Department FOREIGN KEY (Dept_ID) REFERENCES Department(DeptID),
    CONSTRAINT FK_FTInstructor_Branch FOREIGN KEY (Branch_ID) REFERENCES Branch(BranchID)
);
go

create table ExternalInstructor(
    InstructorID int primary key,
    Company_ID int not null,
    JobTitle_ID int not null,
    JobField_ID int not null,
    JobType_ID tinyint not null,
    CONSTRAINT FK_ExInst_User FOREIGN KEY (InstructorID) REFERENCES Instructor(InstructorID),
    CONSTRAINT FK_ExInst_Company FOREIGN KEY (Company_ID) REFERENCES Company(CompanyID),
    CONSTRAINT FK_ExInst_Jtitle FOREIGN KEY (JobTitle_ID) REFERENCES Job(JobTitleID),
    CONSTRAINT FK_ExInst_Jfield FOREIGN KEY (JobField_ID) REFERENCES JobField(JobFieldID),
    constraint FK_ExtInst_JTID foreign key(JobType_ID) references JobType(JobTypeID)
);
go
```

```
create table InstructorCanTeach(
    Instructor_ID INT NOT NULL,
    Course_ID INT NOT NULL,
    CONSTRAINT PK_InstructorCourse PRIMARY KEY (Instructor_ID, Course_ID),
    CONSTRAINT FK_InstructorCourse_Instructor FOREIGN KEY(Instructor_ID) REFERENCES Instructor(InstructionID)
    CONSTRAINT FK_InstructorCourse_Course FOREIGN KEY (Course_ID) REFERENCES Course(CourseID)
);
go
```

```
create table [Open] (
    OpenID int identity(1,1) primary key,
    Track_ID tinyINT NOT NULL,
    Intake_ID INT NOT NULL,
    Branch_ID tinyint NOT NULL,
    Supervisor_ID int not null,
    CONSTRAINT FK_Open_Track FOREIGN KEY (Track_ID) REFERENCES Track(TrackID),
    CONSTRAINT FK_Open_Intake FOREIGN KEY (Intake_ID) REFERENCES Intake(IntakeID),
    CONSTRAINT FK_Open_Branch FOREIGN KEY (Branch_ID) REFERENCES Branch(BranchID),
    constraint FK_Open_Super foreign key (Supervisor_ID) references FulltimeInstructor(InstructionID)
);
go
```

```
create table Student(
    StudentID int primary key,
    Open_ID int not null,
    University_ID int not null,
    Faculty_ID int not null,
    GradYear int not null,
    GPA Decimal(3,2) not null,
    CONSTRAINT FK_Student_User FOREIGN KEY (StudentID) REFERENCES [User](UserID),
    CONSTRAINT FK_Student_Branch FOREIGN KEY (Open_ID) REFERENCES [Open](OpenID),
    constraint FK_Student_University foreign key (University_ID) references University(UniversityID),
    constraint FK_Student_Faculty foreign key (Faculty_ID) references Faculty(FacultyID),
    constraint CK_Student_GPA check (GPA between 0 and 4)
);
go
```

```
CREATE TABLE StudentFreelance(
    FreelanceID int identity(1,1) primary key,
    Student_ID int NOT NULL,
    Revenue int NOT NULL,
    JobField_ID int NOT NULL,
    Feedback tinyint NOT NULL,
    CONSTRAINT FK_Student_Freelance FOREIGN KEY (Student_ID) REFERENCES Student(StudentID),
    CONSTRAINT FK_Freelance_Jfield FOREIGN KEY (JobField_ID) REFERENCES JobField(JobFieldID),
    CONSTRAINT CHK_Feedback CHECK (Feedback >= 0 AND Feedback <= 5)
);
go
```

```
create table GradJob(
    StudentID int primary key,
    Company_ID int not null,
    JobTitle_ID int not null,
    JobField_ID int not null,
    JobType_ID tinyint not null,
    Salary int not null,
    CONSTRAINT FK_Grad_User FOREIGN KEY (StudentID) REFERENCES Student(StudentID),
    CONSTRAINT FK_Grad_Company FOREIGN KEY (Company_ID) REFERENCES Company(CompanyID),
    CONSTRAINT FK_Grad_Jtitle FOREIGN KEY (JobTitle_ID) REFERENCES Job(JobTitleID),
    CONSTRAINT FK_Grad_Jfield FOREIGN KEY (JobField_ID) REFERENCES JobField(JobFieldID),
    constraint FK_GradJob_JTID foreign key(JobType_ID) references JobType(JobTypeID)
);
go
```

```
create table StudentExternalCertificate(
    Student_ID int not null,
    [Cert_ID] int not null,
    CONSTRAINT PK_Cert_Stud PRIMARY KEY (Student_ID, Cert_ID),
    CONSTRAINT FK_SEC_Stud FOREIGN KEY (Student_ID) REFERENCES Student(StudentID),
    constraint FK_SEC_Cert foreign key (Cert_ID) references Certificate(CertID)
);
go
```

```
create table StudentTakes(
    Student_ID INT NOT NULL,
    Course_ID INT NOT NULL,
    Finished BIT NOT NULL DEFAULT 0,
    CONSTRAINT PK_Take PRIMARY KEY (Student_ID, Course_ID),
    CONSTRAINT FK_Take_Used FOREIGN KEY (Student_ID) REFERENCES Student(StudentID)
);
go
```

```
create table Teach(
    TeachID int identity(1,1) primary key,
    Instructor_ID INT NOT NULL,
    Course_ID INT NOT NULL,
    Open_ID int NOT NULL,
    CONSTRAINT FK_Teach_User FOREIGN KEY(Instructor_ID) REFERENCES Instructor(InstructorID),
    CONSTRAINT FK_Teach_Course FOREIGN KEY (Course_ID) REFERENCES Course(CourseID),
    CONSTRAINT FK_Teach_Open FOREIGN KEY (Open_ID) REFERENCES [open](OpenID)
);
go
```

-- Create Examination Tables

```
create table Exam(
    ExamID INT identity(1,1) PRIMARY KEY,
    Teach_ID INT NOT NULL,
    StartTime TIME(0) NOT NULL,
    EndTime TIME(0) NOT NULL,
    ExamDate DATE NOT NULL,
    Score INT NULL,
    ExamType char(1) NOT NULL default('n'),
    Archived BIT NOT NULL DEFAULT (0),
    CONSTRAINT FK_Exam_Teach FOREIGN KEY (Teach_ID) REFERENCES Teach(TeachID),
    CONSTRAINT CK_Exam_TypeT CHECK (ExamType IN ('c', 'n')) -- c for Corrective & n for Normal
);
go
```

```
create table Schedule(
    ScheduleID int identity(1,1) primary key,
    Teach_ID int not null,
    StartTime time(0) not null,
    EndTime time(0) not null,
    [Date] Date not null,
    CONSTRAINT FK_Schedule_Teach FOREIGN KEY(Teach_ID) REFERENCES Teach(TeachID)
);
go
```

```
create table QuestionPool(
    QPID INT identity(1,1) PRIMARY KEY,
    Course_ID INT NOT NULL,
    Qtype_ID tinyint NOT NULL,
    [Description] NVARCHAR(1000) NOT NULL,
    CONSTRAINT FK_QPool_Course FOREIGN KEY (Course_ID) REFERENCES Course(CourseID),
    CONSTRAINT FK_QPool_Qtype FOREIGN KEY (Qtype_ID) REFERENCES Qtype(QtypeID)
);
go

create table AnswersMCQ(
    QP_ID INT NOT NULL,
    OptionID TINYINT NOT NULL,
    [Option] NVARCHAR(200) NOT NULL,
    IS_Correct BIT NOT NULL DEFAULT(0),
    CONSTRAINT PK_Answer_MCQ PRIMARY KEY (QP_ID, OptionID),
    CONSTRAINT FK_AMCQ_QP FOREIGN KEY (QP_ID) REFERENCES QuestionPool(QPID),
    CONSTRAINT CK_AMCQ_OptionID CHECK (OptionID BETWEEN 1 AND 4)
);
go

create table ExamQuestions(
    ExamQuestionID int identity(1,1) primary key,
    Exam_ID INT NOT NULL,
    QP_ID INT NOT NULL,
    Degree INT NOT NULL,
    CONSTRAINT FK_ChOOSE_Exam FOREIGN KEY (Exam_ID) REFERENCES Exam(ExamID),
    CONSTRAINT FK_ChOOSE_QP FOREIGN KEY (QP_ID) REFERENCES QuestionPool(QPID)
);
go

create table StudentAnswer(
    Student_ID INT NOT NULL,
    ExamQuestion_ID int not null,
    Student_Answer NVARCHAR(1000) NULL,
    Qscore int not null,
    CONSTRAINT PK_Student_Answer PRIMARY KEY (Student_ID, ExamQuestion_ID),
    CONSTRAINT FK_SA_Student FOREIGN KEY (Student_ID) REFERENCES Student(StudentID),
    CONSTRAINT FK_SA_EQ FOREIGN KEY (ExamQuestion_ID) REFERENCES ExamQuestions(ExamQuestionID)
);
go
```

```
425  ▼ create table AnswerText(
426      QP_ID INT NOT NULL PRIMARY KEY,
427      Answer NVARCHAR(1000) NOT NULL,
428      CONSTRAINT FK_AT_QP FOREIGN KEY (QP_ID) REFERENCES QuestionPool(QPID)
429  );
430  go
431
432  ▼ CREATE TABLE StudentExamResult(
433      Student_ID INT NOT NULL,
434      Exam_ID INT NOT NULL,
435      TotalScore INT NOT NULL,
436      IsPass BIT NOT NULL,
437      CalculatedAt DATETIME NOT NULL CONSTRAINT DF_StudentExamResult_CalcAt DEFAULT (GETDATE()),
438      CONSTRAINT PK_StudentExamResult PRIMARY KEY (Student_ID, Exam_ID),
439      CONSTRAINT FK_SER_User FOREIGN KEY (Student_ID) REFERENCES Student(StudentID),
440      CONSTRAINT FK_SER_Exam FOREIGN KEY (Exam_ID) REFERENCES Exam(ExamID)
441  );
442  go
443
444  ▼ -----
445  | -- Create Audit Tables
446
447  ▼ create table AuditExamSubmissions (
448      Log_ID INT IDENTITY(1,1) PRIMARY KEY,
449      User_ID INT NOT NULL,
450      Exam_ID INT NOT NULL,
451      Question_Pool_ID INT NULL,
452      Student_Answer NVARCHAR(max) NULL,
453      Attempt_Time DATETIME DEFAULT GETDATE(),
454  );
455  go
456
457  ▼ CREATE TABLE AuditUserChanges (
458      Log_ID INT IDENTITY(1,1) PRIMARY KEY,
459      User_ID INT NOT NULL,
460      Role_ID tinyint NOT NULL,
461      Department_ID INT NULL,
462      Track_ID INT NULL,
463      Attempt_Time DATETIME DEFAULT GETDATE(),
464      [Name] nvarchar(120) NOT NULL,
465      Email nvarchar(120) NULL
466  );
```

Stored Procedures

CreateExam

```
1517  
1518  /* Questions & Exams */  
1519  create or alter procedure CreateExam  
1520      @CourseID INT,  
1521      @StartTime TIME(0),  
1522      @EndTime TIME(0),  
1523      @Date DATE,  
1524      @Score INT,  
1525      @ExamType char(1),  
1526      @OpenID INT,  
1527      @InstructorID INT  
1528  as  
1529  begin  
1530      set nocount on;  
1531      if @StartTime >= @EndTime  
1532      begin  
1533          select 'Exam Start Time must be earlier than End Time.' as Message;  
1534          return 1;  
1535      end;  
1536  
1537      if @Date <= CAST(GETDATE() AS DATE)  
1538      begin  
1539          select 'Exam Date must be in the future' as Message;  
1540          return 1;  
1541      end  
1542  
1543      declare @TeachID int  
1544      select @TeachID = TeachID from Teach where Instructor_ID = @InstructorID and Course_ID = @CourseID and Open_ID = @OpenID  
1545      if @TeachID is null  
1546      begin  
1547          select 'This user is not assigned to teach the given course in this Open.' as Message;  
1548          return 1  
1549      end;  
1550  
1551      if @ExamType != 'c' and @ExamType != 'n'  
1552      begin  
1553          select 'Invalid Exam Type' as Message;  
1554          return 1;  
1555      end;  
1556  
1557      insert into Exam (Teach_ID, StartTime, EndTime, ExamDate, score, ExamType)  
1558      values (@TeachID, @StartTime, @EndTime, @Date, @Score, @ExamType);  
1559  
1560      select 'Exam Created Successfully' as Message;  
1561      return 0;  
1562  end;  
1563  go
```

AddQuestionsUnified

```
CREATE OR ALTER PROCEDURE AddQuestionUnified
    @Course_ID      INT,
    @Type_ID        INT,
    @Description    NVARCHAR(500),
    @Option1        NVARCHAR(50) = NULL,
    @Option2        NVARCHAR(50) = NULL,
    @Option3        NVARCHAR(50) = NULL,
    @Option4        NVARCHAR(50) = NULL,
    @CorrectOption TINYINT = NULL,
    @TextAnswer     NVARCHAR(1000) = NULL
AS
BEGIN

    BEGIN TRY
        /* ----- Validation ----- */
        IF NOT EXISTS (SELECT 1 FROM dbo.Course WHERE CourseID = @Course_ID)
        BEGIN
            RAISERROR('Course_ID does not exist.', 16, 1);
            RETURN 1;
        END;

        IF @Type_ID NOT IN (1, 2, 3)
        BEGIN
            RAISERROR('Invalid Type. Allowed: MCQ, TrueFalse, Text.', 16, 1);
            RETURN 1;
        END;

        -- Text: no options allowed; answer is optional but recommended
        IF @Type_ID = 3 AND (
            @Option1 IS NOT NULL OR @Option2 IS NOT NULL OR
            @Option3 IS NOT NULL OR @Option4 IS NOT NULL OR
            @CorrectOption IS NOT NULL)
        BEGIN
            RAISERROR('Text questions must not include options or CorrectOption.', 16, 1);
            RETURN 1;
        END;

        -- True/False: CorrectOption must be 1 (True) or 2 (False)
        IF @Type_ID = 2 AND (@CorrectOption NOT IN (1,2))
        BEGIN
            RAISERROR('For TrueFalse, CorrectOption must be 1 (True) or 2 (False).', 16, 1);
            RETURN 1;
        END;

        IF @CorrectOption NOT BETWEEN 1 AND 4
        BEGIN
            RAISERROR('For MCQ, CorrectOption must be between 1 and 4.', 16, 1);
            RETURN 1;
        END;

        IF (@CorrectOption = 1 AND @Option1 IS NULL) OR
            (@CorrectOption = 2 AND @Option2 IS NULL) OR
            (@CorrectOption = 3 AND @Option3 IS NULL) OR
            (@CorrectOption = 4 AND @Option4 IS NULL)
        BEGIN
            RAISERROR('CorrectOption must reference a non-NULL option.', 16, 1);
            RETURN 1;
        END;

        /* ----- Atomic insert ----- */
        BEGIN TRAN;
    END TRY
    BEGIN CATCH
        IF XACT_STATE() <> 0 ROLLBACK TRAN;
        DECLARE @msg NVARCHAR(4000) = ERROR_MESSAGE();
        RAISERROR(@msg, 16, 1);
    END CATCH
END
```

/* MCQ: need 1-4 options; CorrectOption in 1..4 and must exist

```
IF @Type_ID = 1
BEGIN
    DECLARE @optCount INT =
        (CASE WHEN @Option1 IS NOT NULL THEN 1 ELSE 0 END) +
        (CASE WHEN @Option2 IS NOT NULL THEN 1 ELSE 0 END) +
        (CASE WHEN @Option3 IS NOT NULL THEN 1 ELSE 0 END) +
        (CASE WHEN @Option4 IS NOT NULL THEN 1 ELSE 0 END);

    IF @optCount = 0
    BEGIN
        RAISERROR('MCQ must have at least one option.', 16, 1);
        RETURN 1;
    END;

    IF @CorrectOption NOT BETWEEN 1 AND 4
    BEGIN
        RAISERROR('For MCQ, CorrectOption must be between 1 and 4.', 16, 1);
        RETURN 1;
    END;

    IF (@CorrectOption = 1 AND @Option1 IS NULL) OR
        (@CorrectOption = 2 AND @Option2 IS NULL) OR
        (@CorrectOption = 3 AND @Option3 IS NULL) OR
        (@CorrectOption = 4 AND @Option4 IS NULL)
    BEGIN
        RAISERROR('CorrectOption must reference a non-NULL option.', 16, 1);
        RETURN 1;
    END;

    /* ----- Atomic insert ----- */
    BEGIN TRAN;
```

= concurrent-safe qpid insertion

```
INSERT INTO dbo.QuestionPool(Course_ID, Qtype_ID, [Description])
VALUES (@Course_ID, @Type_ID, @Description);
DECLARE @NewQPID int;
select @NewQPID = QPID from QuestionPool where Course_ID = @Course_ID and Qtype_ID = @Type_ID and [Description] = @Description;

IF @Type_ID = 1
BEGIN
    IF @Option1 IS NOT NULL
        INSERT INTO dbo.AnswersMCQ(QP_ID, OptionID, [Option], IS_Correct)
        VALUES (@NewQPID, 1, @Option1, IIF(@CorrectOption=1,1,0));
    IF @Option2 IS NOT NULL
        INSERT INTO dbo.AnswersMCQ(QP_ID, OptionID, [Option], IS_Correct)
        VALUES (@NewQPID, 2, @Option2, IIF(@CorrectOption=2,1,0));
    IF @Option3 IS NOT NULL
        INSERT INTO dbo.AnswersMCQ(QP_ID, OptionID, [Option], IS_Correct)
        VALUES (@NewQPID, 3, @Option3, IIF(@CorrectOption=3,1,0));
    IF @Option4 IS NOT NULL
        INSERT INTO dbo.AnswersMCQ(QP_ID, OptionID, [Option], IS_Correct)
        VALUES (@NewQPID, 4, @Option4, IIF(@CorrectOption=4,1,0));
END;
ELSE IF @Type_ID = 2
BEGIN
    -- Always insert canonical TF options
    INSERT INTO dbo.AnswersMCQ(QP_ID, OptionID, [Option], IS_Correct)
    VALUES
        (@NewQPID, 1, N'True', IIF(@CorrectOption=1,1,0)),
        (@NewQPID, 2, N'False', IIF(@CorrectOption=2,1,0));
END;
ELSE IF @Type_ID = 3
BEGIN
    -- Save expected/model answer only if provided
    IF @TextAnswer IS NOT NULL
        INSERT INTO dbo.AnswerText(QP_ID, Answer)
        VALUES (@NewQPID, @TextAnswer);
END;
```

COMMIT TRAN;

```
select 'Question (' + CAST(@NewQPID AS NVARCHAR(20)) + ') and answers added successfully.' as Message;
```

END TRY
BEGIN CATCH
 IF XACT_STATE() <> 0 ROLLBACK TRAN;
 DECLARE @msg NVARCHAR(4000) = ERROR_MESSAGE();
 RAISERROR(@msg, 16, 1);
END CATCH

RemoveQuestionsUnified

```
CREATE OR ALTER PROCEDURE RemoveQuestionUnified
    @QPID INT
AS
BEGIN
    SET NOCOUNT ON;

    DECLARE @QType int;

    -- Find the type of the question
    SELECT @QType = Qtype_ID
    FROM dbo.QuestionPool
    WHERE QPID = @QPID;

    IF @QType IS NULL
    BEGIN
        select 'No question found with the given QPID.' as Message;
        RETURN 1;
    END;

    -- Remove answers depending on type
    IF @QType IN (1, 2)
    BEGIN
        DELETE FROM dbo.AnswersMCQ WHERE QP_ID = @QPID;
    END
    ELSE IF @QType = 3
    BEGIN
        DELETE FROM dbo.AnswerText WHERE QP_ID = @QPID;
    END;

    -- Remove from QuestionPool itself
    DELETE FROM dbo.QuestionPool WHERE QPID = @QPID;

    select 'Question and related answers removed successfully' as Message;
END;
go
```

AddQuestionsToExam

```
CREATE OR ALTER PROCEDURE AddQuestionToExam
    @ExamID INT,
    @QPID INT,
    @Degree INT
AS
BEGIN
    SET NOCOUNT ON;

    DECLARE @CurrentDate DATE = GETDATE();

    -- Check if exam exists, not archived, and is in the future
    IF NOT EXISTS (SELECT 1 FROM Exam WHERE ExamID = @ExamID AND Archived = 0 AND ExamDate > @CurrentDate)
    BEGIN
        SELECT 'Invalid Exam' AS Message;
        RETURN 1;
    END;

    -- Check if question belongs to the course taught in this exam
    IF NOT EXISTS (
        SELECT 1
        FROM QuestionPool qp
        JOIN Course c ON qp.Course_ID = c.CourseID
        JOIN Teach t ON t.Course_ID = qp.Course_ID
        JOIN Exam e ON e.Teach_ID = t.TeachID
        WHERE qp.QPID = @QPID AND e.ExamID = @ExamID
    )
    BEGIN
        SELECT 'Question does not belong to Exam' AS Message;
        RETURN 1;
    END;

    -- Insert the question into the exam
    INSERT INTO ExamQuestions (Exam_ID, QP_ID, Degree)
    VALUES (@ExamID, @QPID, @Degree);

    SELECT 'Question added to exam successfully' AS Message;
    RETURN 0;
END;
GO
```

ProcessFinishedExamAndArchive

```
CREATE OR ALTER PROCEDURE ProcessFinishedExamsAndArchive
AS
BEGIN
    SET NOCOUNT ON;
    SET XACT_ABORT ON;

    BEGIN TRY
        BEGIN TRAN;

        -- 1) Identify finished exams
        SELECT e.ExamID, e.Teach_ID
        INTO #Finished
        FROM dbo.Exam e
        WHERE (e.Archived = 0 OR e.Archived IS NULL)
            AND GETDATE() >= (CAST(e.ExamDate AS datetime) + CAST(e.EndTime AS datetime));

        IF NOT EXISTS (SELECT 1 FROM #Finished)
        BEGIN
            SELECT 'No finished exams found to process.' AS Message;
            COMMIT;
            RETURN;
        END

        -- 2) Calculate total per (Student, Exam)
        SELECT sa.Student_ID,
               sa.Exam_ID,
               SUM(ISNULL(sa.QScore, 0)) AS TotalScore
        INTO #Totals
        FROM dbo.StudentAnswer sa
        JOIN #Finished f ON f.ExamID = sa.Exam_ID
        GROUP BY sa.Student_ID, sa.Exam_ID;

        -- 3) Get passing thresholds
        SELECT f.ExamID,
               ISNULL(c.MinDegree, 0) AS MinRequired
        INTO #Thresholds
        FROM #Finished f
        JOIN dbo.Exam e ON e.ExamID = f.ExamID
        JOIN dbo.Course c ON c.CourseID = e.Course_ID;
```

```
-- 4) Insert results if not already present
INSERT INTO dbo.StudentExamResult (Student_ID, Exam_ID, TotalScore, IsPass, CalculatedAt)
SELECT t.Student_ID,
       t.Exam_ID,
       t.TotalScore,
       CASE WHEN t.TotalScore >= th.MinRequired THEN 1 ELSE 0 END,
       GETDATE()
FROM #Totals t
JOIN #Thresholds th ON th.ExamID = t.Exam_ID
WHERE NOT EXISTS (
    SELECT 1
    FROM dbo.StudentExamResult ser
    WHERE ser.Student_ID = t.Student_ID AND ser.Exam_ID = t.Exam_ID
);

-- 5) Mark exams as archived
UPDATE e
SET e.Archived = 1
FROM dbo.Exam e
WHERE EXISTS (SELECT 1 FROM #Finished f WHERE f.ExamID = e.ExamID);

-- 6) Cleanup
DROP TABLE IF EXISTS #Finished, #Totals, #Thresholds;
COMMIT;

END TRY
BEGIN CATCH
    IF @@TRANCOUNT > 0 ROLLBACK;
    DECLARE @msg NVARCHAR(4000) = ERROR_MESSAGE();
    RAISERROR(@msg, 16, 1);
END CATCH
END;
GO
```

StudentAnswer

```
CREATE OR ALTER PROCEDURE dbo.StudentAnswer_PROCEDURE
    @Student_ID      INT,
    @exam_id         INT,
    @question_id     INT,
    @student_answer NVARCHAR(2000)
AS
BEGIN
    SET NOCOUNT ON;
    SET XACT_ABORT ON;

    BEGIN TRY
        BEGIN TRAN;

        DECLARE
            @CourseID      INT      = NULL,
            @QType          NVARCHAR(10) = NULL,
            @Degree         INT      = NULL,
            @CorrectOptionID INT      = NULL,
            @ChosenOptionID INT      = NULL,
            @QScore         INT      = NULL;

        -- Exam → Course
        select @CourseID = t.Course_ID from Exam e join Teach t on e.Teach_ID = t.TeachID where e.ExamID = @exam_ID

        IF @CourseID IS NULL
        BEGIN
            RAISERROR(N'Invalid Exam_ID.', 16, 1);
            ROLLBACK TRANSACTION; RETURN;
        END

        -- Question belongs to course → type
        SELECT @QType = qp.Qtype_ID
        FROM dbo.QuestionPool qp
        WHERE qp.QPID = @question_id
            AND qp.Course_ID = @CourseID;

        IF @QType IS NULL
        BEGIN
            RAISERROR(N'Invalid Question_ID for this exam''s course.', 16, 1);
            ROLLBACK TRANSACTION; RETURN;
        END
```

```
-- Degree on this exam
SELECT @Degree = EQ.Degree
FROM dbo.ExamQuestions EQ
WHERE EQ.Exam_ID = @exam_id
    AND EQ.QP_ID = @question_id;

IF @Degree IS NULL
BEGIN
    RAISERROR(N'This question is not assigned to the specified exam.', 16, 1);
    ROLLBACK TRANSACTION; RETURN;
END

=====
IF @QType IN (1,2)
BEGIN
    DECLARE @ans NVARCHAR(20) = UPPER(LTRIM(RTRIM(ISNULL(@student_answer, N''))));

    -- Try numeric first
    SET @ChosenOptionID = TRY_CAST(@ans AS INT);
    IF @ChosenOptionID IS NULL
    BEGIN
        SET @ChosenOptionID =
        CASE @ans
            WHEN N'A' THEN 1 WHEN N'B' THEN 2 WHEN N'C' THEN 3 WHEN N'D' THEN 4
            WHEN N'T' THEN 1 WHEN N'TRUE' THEN 1 WHEN N'Y' THEN 1 WHEN N'YES' THEN 1
            WHEN N'F' THEN 2 WHEN N'FALSE' THEN 2 WHEN N'N' THEN 2 WHEN N'NO' THEN 2
            WHEN N'0' THEN 2 WHEN N'1' THEN 1
        END;
    END

    IF @ChosenOptionID IS NULL
    BEGIN
        RAISERROR(N'Invalid answer format for MCQ/TrueFalse.', 16, 1);
        ROLLBACK TRANSACTION; RETURN;
    END

    IF NOT EXISTS (
        SELECT 1
        FROM dbo.AnswersMCQ
        WHERE QP_ID = @question_id AND OptionID = @ChosenOptionID
    )
    BEGIN
        RAISERROR(N'Chosen option does not exist for this question.', 16, 1);
        ROLLBACK TRANSACTION; RETURN;
    END

    SELECT @CorrectOptionID = am.OptionID
    FROM dbo.AnswersMCQ am
    WHERE am.QP_ID = @question_id AND am.IS_Correct = 1;

    IF @CorrectOptionID IS NULL
    BEGIN
        RAISERROR(N'No correct option configured for this question.', 16, 1);
        ROLLBACK TRANSACTION; RETURN;
    END

    SET @QScore = CASE WHEN @ChosenOptionID = @CorrectOptionID THEN @Degree ELSE 0 END;
    SET @student_answer = CONVERT(NVARCHAR(5), @ChosenOptionID);
```

StudentAnswer

```
/*
Text (≥ 4-word overlap)
=====

ELSE IF @QType = 3
BEGIN
    DECLARE @ModelAnswer NVARCHAR(1000) = NULL;
    SELECT @ModelAnswer = at.Answer
    FROM dbo.AnswerText at
    WHERE at.QP_ID = @question_id;

    IF @ModelAnswer IS NULL OR @student_answer IS NULL
    BEGIN
        SET @QScore = NULL;
    END
    ELSE
    BEGIN
        -- Normalize (case, punctuation incl. Arabic, simple Arabic unifications)
        DECLARE @Punct NVARCHAR(100) = N'.,:!?"()[]{}'-/_|\,\$\t\r';
        DECLARE @stu NVARCHAR(2000) = LOWER(@student_answer);
        DECLARE @mod NVARCHAR(2000) = LOWER(@ModelAnswer);

        -- unify alef variants + drop tatweel
        SET @stu = REPLACE(REPLACE(@stu, N'\i', N'\I'), N'\j', N'\I'), N'\t', N'\I');
        SET @mod = REPLACE(REPLACE(@mod, N'\i', N'\I'), N'\j', N'\I'), N'\t', N'\I');
        SET @stu = REPLACE(@stu, NCHAR(1600), N''); -- tatweel
        SET @mod = REPLACE(@mod, NCHAR(1600), N'');

        -- strip punctuation by translating to spaces (lengths match)
        SET @stu = TRANSLATE(@stu, @Punct, REPLICATE(N' ', LEN(@Punct)));
        SET @mod = TRANSLATE(@mod, @Punct, REPLICATE(N' ', LEN(@Punct)));

        -- collapse multiple spaces
        WHILE CHARINDEX(N'  ', @stu) > 0 SET @stu = REPLACE(@stu, N'  ', N' ');
        WHILE CHARINDEX(N'  ', @mod) > 0 SET @mod = REPLACE(@mod, N'  ', N' ');

        DECLARE @StudentWords TABLE(word NVARCHAR(100) PRIMARY KEY);
        DECLARE @ModelWords TABLE(word NVARCHAR(100) PRIMARY KEY);

        INSERT INTO @StudentWords(word)
        SELECT DISTINCT LTRIM(RTRIM(value))
        FROM STRING_SPLIT(@stu, N' ')
        WHERE LEN(LTRIM(RTRIM(value))) > 0;

        INSERT INTO @ModelWords(word)
        SELECT DISTINCT LTRIM(RTRIM(value))
        FROM STRING_SPLIT(@mod, N' ')
        WHERE LEN(LTRIM(RTRIM(value))) > 0;
```

```
DECLARE @Matches INT;
SELECT @Matches = COUNT(*)
FROM @StudentWords s
JOIN @ModelWords m ON m.word = s.word;

SET @QScore = CASE WHEN @Matches >= 4 THEN @Degree ELSE 0 END;
END
END
ELSE
BEGIN
    RAISERROR(N'Unknown question type.', 16, 1);
    ROLLBACK TRANSACTION; RETURN;
END
declare @ExamQuestionID int;
select @ExamQuestionID = ExamQuestionID from ExamQuestions where Exam_ID = @exam_id and QP_ID = @question_id;
/* Upsert */
IF EXISTS (
    SELECT 1
    FROM dbo.StudentAnswer
    WHERE Student_ID = @Student_ID AND ExamQuestion_ID = @ExamQuestionID
)
BEGIN
    UPDATE dbo.StudentAnswer
    SET Student_Answer = @student_answer,
        QScore = @QScore
    WHERE Student_ID = @Student_ID AND ExamQuestion_ID = @ExamQuestionID;
END
ELSE
BEGIN
    INSERT INTO dbo.StudentAnswer(Student_ID, ExamQuestion_ID, Student_Answer, QScore)
    VALUES(@Student_ID, @ExamQuestionID, @student_answer, @QScore);
END

COMMIT;
END TRY
BEGIN CATCH
    IF @@TRANCOUNT > 0 ROLLBACK;
    DECLARE @msg NVARCHAR(4000) = ERROR_MESSAGE();
    RAISERROR(@msg, 16, 1);
END CATCH
END;
GO
```

SSRS Reports

Select Intake 2 - 2023-10-01

Select Track Data Analytics Professional

Select Course SQL for Data Analysis

View Report

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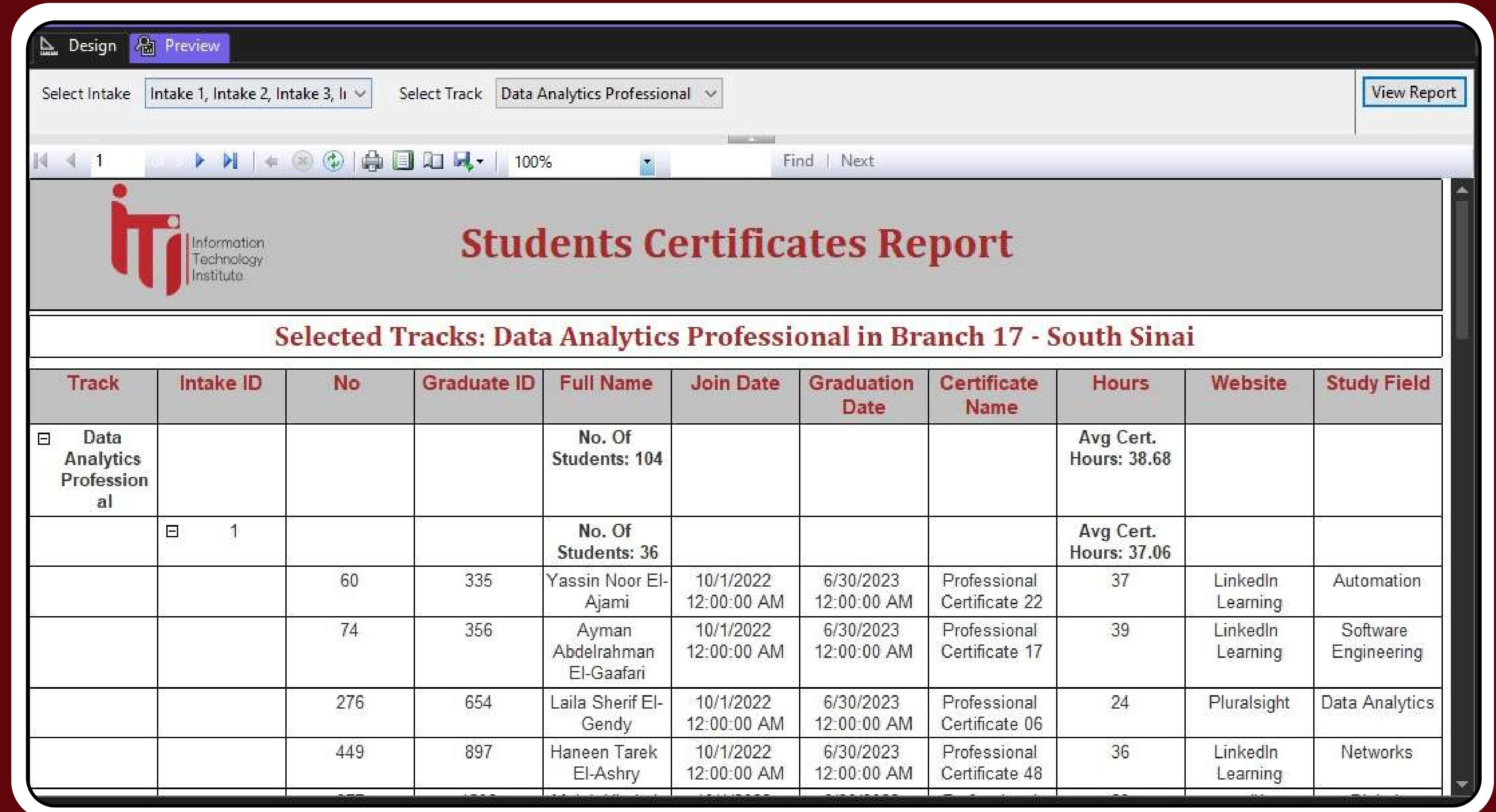
Find | Next



Students Exam Results

Selected Courses: SQL for Data Analysis in Branch 17 - South Sinai

Intake ID	Track	Course	ExamID	ExamType	StudentID	Full Name	Total Score	Indicator
2	Data Analytics Professional	SQL for Data Analysis	3321 1/21/2024	Normal Exam	387	Malek Malek El-Hawary	92	●
			3321 1/21/2024	Normal Exam	1967	Mostafa Sherif El-Sharqawy	79	●
			3321 1/21/2024	Normal Exam	8345	Abdelrahman Tarek Abdel-Fattah	78	●
			3321 1/21/2024	Normal Exam	11180	Hosain Kareem El-Hawary	77	●
			3321 1/21/2024	Normal Exam	3542	Mai Ahmed El-Sharqawy	77	●
			3321 1/21/2024	Normal Exam	6875	Shahd Seif El-Sharqawy	75	●



Design Preview

Select Track: Data Analytics Professional | Select Job Field: Data Analytics | Select Intake: Intake 1, Intake 2, Intake 3, Intake 4 | View Report

Page Width: Find | Next



Student Job Report

Selected Job Fields : Data Analytics in Branch 17 - South Sinai

Track	Intake ID	No.	Student ID	Full Name	Join Date	Graduation Date	No Of Freelance Jobs	Total Revenue from Freelancing	Average Freelance Feedback	Works at	Job Title	Job Field	Employment Type	Work Mode	Salary	Is Active
ITI Data Analytics Professional				No. Of Students: 12			No. Of Freelance Jobs: 12	Total Freelance Revenue: 49231	Avg Freelance Feedback: 4						Avg First Job Salary: 11007	False
	1			No. Of Students: 4			No. Of Freelance Jobs: 4	Total Freelance Revenue: 13537	Avg Freelance Feedback: 4.5						Avg First Job Salary: 9549	False
		2052	2293	Khaled Kareem El-Ashry	10/1/2022 12:00:00 AM	2023-06-30	1	3830	4	Canal Software House (Suez)	Cloud Architect	Data Analytics	Internship	Onsite	5998	False
		3673	3914	Ayman Kareem El-Badry	10/1/2022 12:00:00 AM	2023-06-30	1	3781	5	Delta Analytics (Mansoura)	Data Engineer	Data Analytics	Internship	Hybrid	3334	False
		6387	6628	Haneen Ahmed El-Saeidy	10/1/2022 12:00:00 AM	2023-06-30	1	4531	5	Commercial International Bank (Giza)	QA Automation Lead	Data Analytics	FullTime	Remote	24322	False
		9578	9819	Jamila Bassem El-Gaafari	10/1/2022 12:00:00 AM	2023-06-30	1	1425	4	Vodafone Egypt (Cairo)	Data Engineer	Data Analytics	Internship	Onsite	4542	False
	2			No. Of Students: 1			No. Of Freelance Jobs: 1	Total Freelance Revenue: 5895	Avg Freelance Feedback: 3						Avg First Job Salary: 11455	False
		9216	9457	Khaled Yahya El-Hawary	10/1/2023 12:00:00 AM	2024-06-30	1	5895	3	Canal Software House (Suez)	Cloud Architect	Data Analytics	PartTime	Onsite	11455	False
	3			No. Of Students: 7			No. Of Freelance Jobs: 7	Total Freelance Revenue: 49231	Avg Freelance Feedback: 4						Avg First Job Salary: 11776	False

Design Preview

Select Track Data Analytics Professional Select Intake A, B, C, D View Report

1 Page Width Find Next



Students Main Report

Selected Tracks: Data Analytics Professional in Branch 17 - South Sinai

Track	Intake ID	No	Student ID	Full Name	Address	Governorate	Email	Phone	Age When Joined	Gender	Marital Status	University	Faculty	Graduation Year	GPA	Join Date	Leave Date
III Data Analytics Professional				No. Of Students: 144					Average Age: 23						Average GPA: 3.18		
	II 1			No. Of Students: 37					Average Age: 22						Average GPA: 2.98		
		94	335	Yassin Noor El-Ajami	122 El Haram St, Haram, Giza	Giza	yassin.noor.el.ajami687@example.com	01234532913	22	Male	Married	Tanta University	Faculty of Information Technology	2021	2.66	10/1/2022 12:00:00 AM	2023-06-30
		115	358	Ayman Abdellrahman El-Gazafri	3 Freedom Ave, Damietta, Damietta	Damietta	ayman.abdella.hman.el.gazafri.873@example.com	01550213043	20	Male	Single	Helwan University	Faculty of Artificial Intelligence	2021	2.70	10/1/2022 12:00:00 AM	2023-06-30
		413	654	Laila Sherif El-Gendy	137 El Boston St, Fayoum City, Fayoum	Fayoum	laila.sherif.el.gendy171@example.com	01222041357	17	Female	Widowed	American University in Cairo	Faculty of Information Technology	2020	2.59	10/1/2022 12:00:00 AM	2023-06-30
		656	897	Haneen Tarek El-Ashry	99 Abbassia Rd, Banha, Banha	Banha	haneen.tarek.el.ashry625@example.com	01163714593	21	Female	Single	Ain Shams University	Faculty of Biotechnology	2020	2.41	10/1/2022 12:00:00 AM	2023-06-30
		1265	1506	Malak Khaled El-Khashab	99 Corniche Rd, Matruh, Matruh	Matruh	malak.khaled.el.khashab736@example.com	01577888064	23	Female	Widowed	Cairo University	Faculty of Engineering	2020	3.85	10/1/2022 12:00:00 AM	2023-06-30
		1388	1629	Shahd Ahmed El-Amin	64 Mostafa Kamel St, Smouha, Alexandria	Alexandria	shahd.ahmed.el.lamin361@example.com	01295274112	18	Female	Divorced	UAE University	Faculty of Economics and Political Science	2021	3.05	10/1/2022 12:00:00 AM	2023-06-30
		1695	1936	Malek Ahmed El-Badry	148 Corniche Rd, Minya, Minya	Minya	malek.ahmed.el.badry390@example.com	01264280598	27	Male	Widowed	King Abdulaziz University	Faculty of Artificial Intelligence	2021	3.93	10/1/2022 12:00:00 AM	2023-06-30
		1850	2091	Naglaa Omar El-	43 23 July St	Suez	naglaa.omar.el.	01061517012	27	Female	Single	Cairo University	Faculty of	2020	2.78	10/1/2022 12:00:00 AM	2023-06-30

Select Track Advanced Artificial Intelligence



Oppenings Report

Selected Tracks : Advanced Artificial Intelligence In Branch 01 - Banha

Open ID	Track	Intake	Branch	Start Date	End Date	Supervisor ID	Supervisor Name	No Of Students
9	Advanced Artificial Intelligence	Intake 1 - 2022-10-01	Branch 01 - Banha	10/1/2022 12:00:00 AM	6/30/2023 12:00:00 AM	77	Heba Mahmoud El-Khashab	39
10	Advanced Artificial Intelligence	Intake 2 - 2023-10-01	Branch 01 - Banha	10/1/2023 12:00:00 AM	6/30/2024 12:00:00 AM	67	Khaled Noor El-Saeidy	24
11	Advanced Artificial Intelligence	Intake 3 - 2024-10-01	Branch 01 - Banha	10/1/2024 12:00:00 AM	6/30/2025 12:00:00 AM	77	Heba Mahmoud El-Khashab	28
12	Advanced Artificial Intelligence	Intake 4 - 2025-09-01 (Current Intake)	Branch 01 - Banha	9/1/2025 12:00:00 AM	6/30/2026 12:00:00 AM	106	Tarek Seif El-Sharqawy	31

[Design](#)[Preview](#)

Select Instructor Status

FullTime, External

[View Report](#)

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Instructors Total Teaching Hours

Selected Instructor Status: FullTime , External

Instructor ID	Full Name	Instructor Status	Total Teaching Hours	Join Date	Leave Date
42	Yahya Sherif El-Khashab	FullTime	510	10/1/2022 12:00:00 AM	Active Instructor
43	Abdelrahman Mostafa El-Ajami	External	540	10/1/2022 12:00:00 AM	Active Instructor
44	Heba Khaled El-Kholy	FullTime	612	10/1/2022 12:00:00 AM	Active Instructor
45	Shahd Khaled El-Amin	External	473	10/1/2022 12:00:00 AM	Active Instructor
46	Seif Tarek El-Shazly	FullTime	372	10/1/2022 12:00:00 AM	Active Instructor
47	Haneen Hossain El-Gaafari	External	458	10/1/2022 12:00:00 AM	Active Instructor
48					

Design Preview

Select Track

Data Analytics Professional

Select Course

Data Visualization with Tableau

View Report

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Instructor - Course Assign Report

Selected Tracks: Data Analytics Professional | Selected Courses: Data Visualization with Tableau , Python Programming Foundations , SQL for Data Analysis in Branch 17

Teach SK	Instructor ID	Full Name	Course	Course Hours	Track	Intake ID	Intake Start Date	Intake End Date
3307	239	Mariam Noor El-Gendy	SQL for Data Analysis	28	Data Analytics Professional	1	10/1/2022 12:00:00 AM	6/30/2023 12:00:00 AM
3308	160	Dina Abdallah El-Hadad	Python Programming Foundations	35	Data Analytics Professional	1	10/1/2022 12:00:00 AM	6/30/2023 12:00:00 AM
3310	103	Tarek Ahmed El-Kholy	Data Visualization with Tableau	30	Data Analytics Professional	1	10/1/2022 12:00:00 AM	6/30/2023 12:00:00 AM
3321	154	Hossain Khaled El-Gaafari	SQL for Data Analysis	28	Data Analytics Professional	2	10/1/2023 12:00:00 AM	6/30/2024 12:00:00 AM
3322	67	Khaled Noor El-Saeidy	Python Programming Foundations	35	Data Analytics Professional	2	10/1/2023 12:00:00 AM	6/30/2024 12:00:00 AM



Fulltime Instructors Report

Branch 01 - Banha

Department	No	Instructor ID	Full Name	Address	Governorate	Email	Phone	Age	Gender	Join Date	Leave Date	Marital Status	No Of Kids	Years Of Experience	Salary	IsActive
Cybersecurity			No. Of Instructors: 1					Avg. Age: 39						Avg. Yrs Of Experience: 16	Total Salary: 27489	
	12	67	Khaled Noor El-Saeidy	127 Salah Salem St, Dakahlia, Dakahlia	Dakahlia	khaled.noor.el.saeidy614@example.com	01220470708	39	Male	10/1/2022 12:00:00 AM	Active Instructor	Divorced	2	16	27489	True
Design & UX			No. Of Instructors: 1					Avg. Age: 42						Avg. Yrs Of Experience: 19	Total Salary: 32429	
	27	108	Tarek Seif El-Sharaway	135 Corniche Rd, Red Sea, Red Sea	Red Sea	tarek.seif.el.sharaway991@example.com	01255566701	42	Male	10/1/2022 12:00:00 AM	Active Instructor	Divorced	3	19	32429	True
IoT & Embedded Systems			No. Of Instructors: 2					Avg. Age: 43						Avg. Yrs Of Experience: 20	Total Salary: 58879	
	18	77	Heba Mahmoud El-Khashab	161 Freedom Ave, Ismailia, Ismailia	Ismailia	heba.mahmoud.el.khashab907@example.com	01514478111	38	Female	10/1/2022 12:00:00 AM	Active Instructor	Divorced	2	13	26233	True
	50	193	Mai Karim El-Gaafar	137 Corniche Rd, Qena, Qena	Qena	mai.karim.el.gaafar367@example.com	01278629070	50	Female	10/1/2022 12:00:00 AM	Active Instructor	Married	3	27	34646	True

Report 1 of 20

Design Preview

Select Job Field Data Analytics

View Report

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External Instructors Report

Selected Job Fields: Data Analytics

No.	Instructor ID	Full Name	Address	Governorate	Email	Phone	Age	Gender	Join Date	Leave Date	Marital Status	No Of Kids	Years Of Experience	Salary	Works At	Job Title	Job Field	Employment Type	Work Mode	Is Active
10	54	Laila Malek El-Hawary	166 Salah Salem St, Matruh, Matruh	Matruh	laila.malek.el.hawary946@example.com	011119584466	46	Female	10/1/2022 12:00:00 AM	Active Instructor	Engaged	0	23	19542	Alexrank Tech Hub (Alexandria)	BI Consultant	Data Analytics	PartTime	Onsite	True
12	57	Sara Khaled El-Gendy	72 Corniche Rd, Lusor, Lusor	Lusor	sara.khaled.el.gendy546@example.com	015222446348	45	Female	10/1/2022 12:00:00 AM	Active Instructor	Engaged	0	22	18839	Banque Misr Digital (Cairo)	Cloud Architect	Data Analytics	PartTime	Remote	True
13	58	Malek Kareem El-Ajam	42 Tahrir St, Dakahla, Dakahla	Dakahla	malek.kareem.el-ajam810@example.com	01548603937	39	Male	10/1/2022 12:00:00 AM	Active Instructor	Married	3	16	16367	Alexrank Tech Hub (Alexandria)	BI Consultant	Data Analytics	Internship	Onsite	True
15	69	Rana Kareem El-Khashab	167 Corniche Rd, Sharqia, Sharqia	Sharqia	rana.kareem.el-khashab972@example.com	01552501540	48	Female	10/1/2022 12:00:00 AM	Active Instructor	Divorced	3	25	20871	Delta Analytics (Mansoura)	QA Automation Lead	Data Analytics	Internship	Remote	True
16	70	Judy Maher El-Mansri	61 Tahrir St, New Valley, New Valley	New Valley	judy.maher.el-mansri864@example.com	01068246664	43	Female	10/1/2022 12:00:00 AM	Active Instructor	Married	2	19	16960	Delta Analytics (Mansoura)	Cybersecurity Lead	Data Analytics	PartTime	Remote	True
21	81	Mostafa Sherif El-Sawy	28 Athosha Rd, North Sinai, North Sinai	North Sinai	mostafasherif.el-sawy234@example.com	01291883846	32	Male	10/1/2022 12:00:00 AM	Active Instructor	Engaged	0	9	13579	Delta Analytics (Mansoura)	Product Manager	Data Analytics	Internship	Hybrid	True
25	87	Seif Kareem El-Ashry	1 Freedom Ave, Beheira, Beheira	Beheira	seif.kareem.el-ashry239@example.com	01233420607	37	Male	10/1/2022 12:00:00 AM	Active Instructor	Married	1	14	15307	Delta Analytics (Mansoura)	Cloud Architect	Data Analytics	Internship	Remote	True
27	89	Malek Bassem El-Hawary	122 Tahrir St, Gharbia, Gharbia	Gharbia	malek.bassem.el-hawary625@example.com	01070667140	34	Male	10/1/2022 12:00:00 AM	Active Instructor	Single	0	11	15043	Matruh Smart Ports (Marsa Matruh)	Data Engineer	Data Analytics	Internship	Remote	True
29	91	Malak Yassien Abdel-Fattah	38 Freedom Ave, Minya, Minya	Minya	malakyassien.abdel.fattah381@example.com	01261124122	38	Female	10/1/2022 12:00:00 AM	Active Instructor	Divorced	2	15	20101	Kafr El Sheikh AgroTech (Kafr El Sheikh)	Cybersecurity Lead	Data Analytics	Internship	Hybrid	True
49	121	Malek Hassan El-Shazly	36 Freedom Ave, Beheira, Beheira	Beheira	malek.hassan.el-shazly756@example.com	015598123245	42	Male	10/1/2022 12:00:00 AM	Active Instructor	Married	2	19	17211	Banque Misr (Alexandria)	IX Strategist	Data Analytics	Internship	Onsite	True
52	125	Judy Yahya El-Khashab	66 Salah Salem St, Helwan, Cairo	Cairo	judy.yahya.el-khashab61@example.com	01524923247	35	Female	10/1/2022 12:00:00 AM	Active Instructor	Engaged	0	12	17617	Delta Analytics (Mansoura)	Product Manager	Data Analytics	Internship	Hybrid	True

Design Preview

Select Course

Database Design & Modelin

Select Intake

1, 2

View Report

1

2

3

4

5

6

7

8

9

10

11

12

13

14

15

16

17

18

19

20

21

22

23

24

25

26

27

28

29

30

31

32

33

34

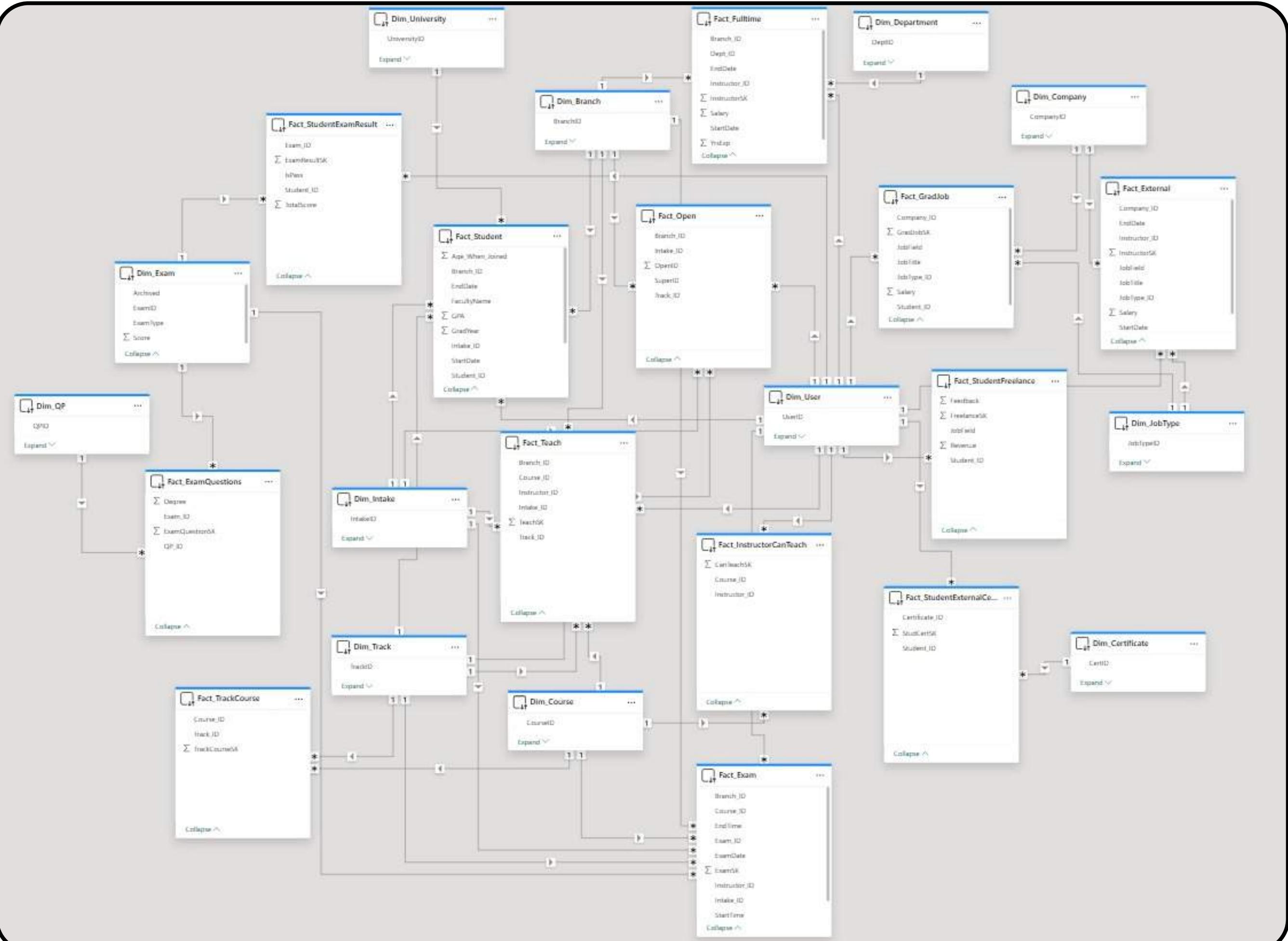


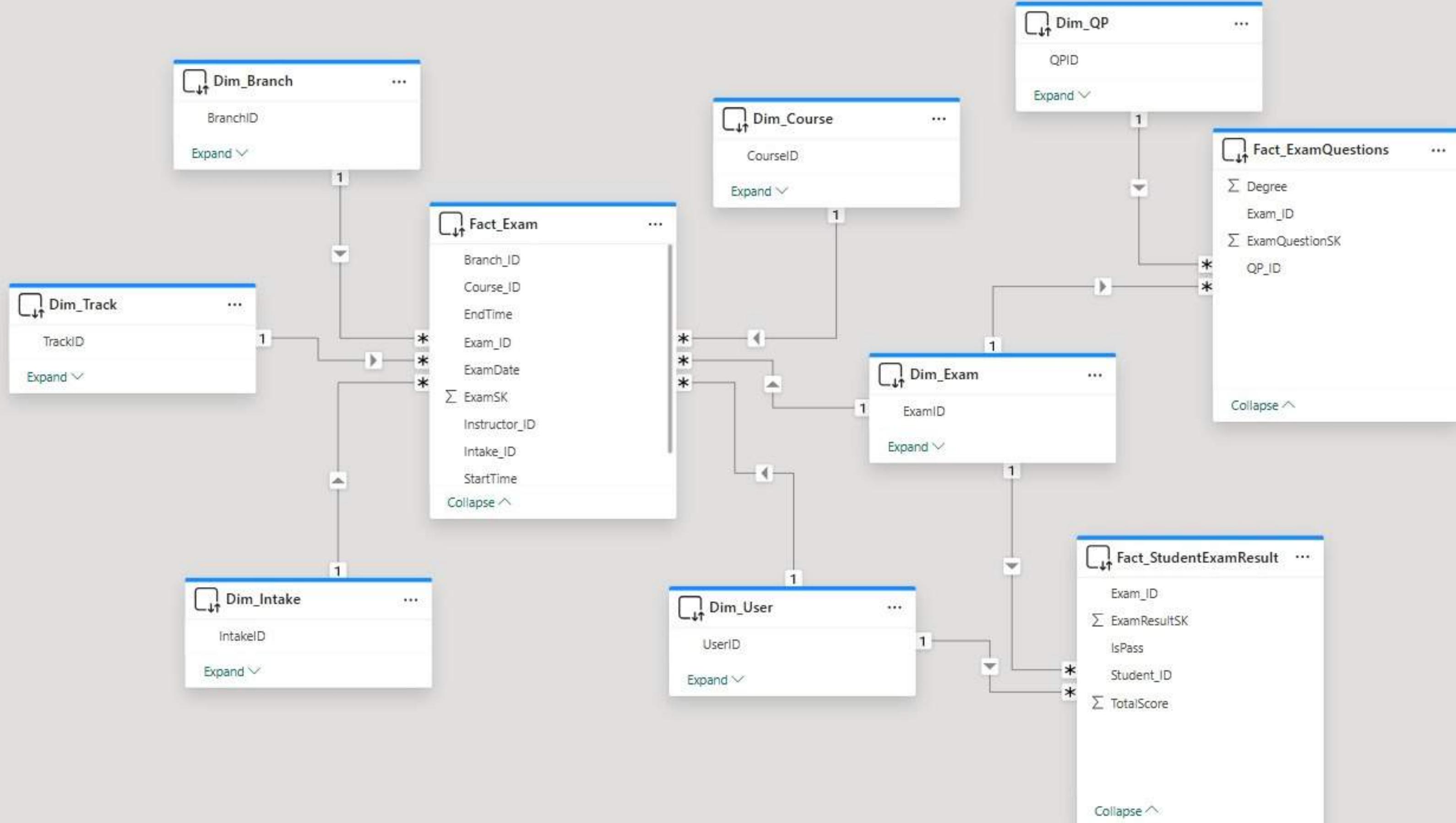
Exam Questions Report

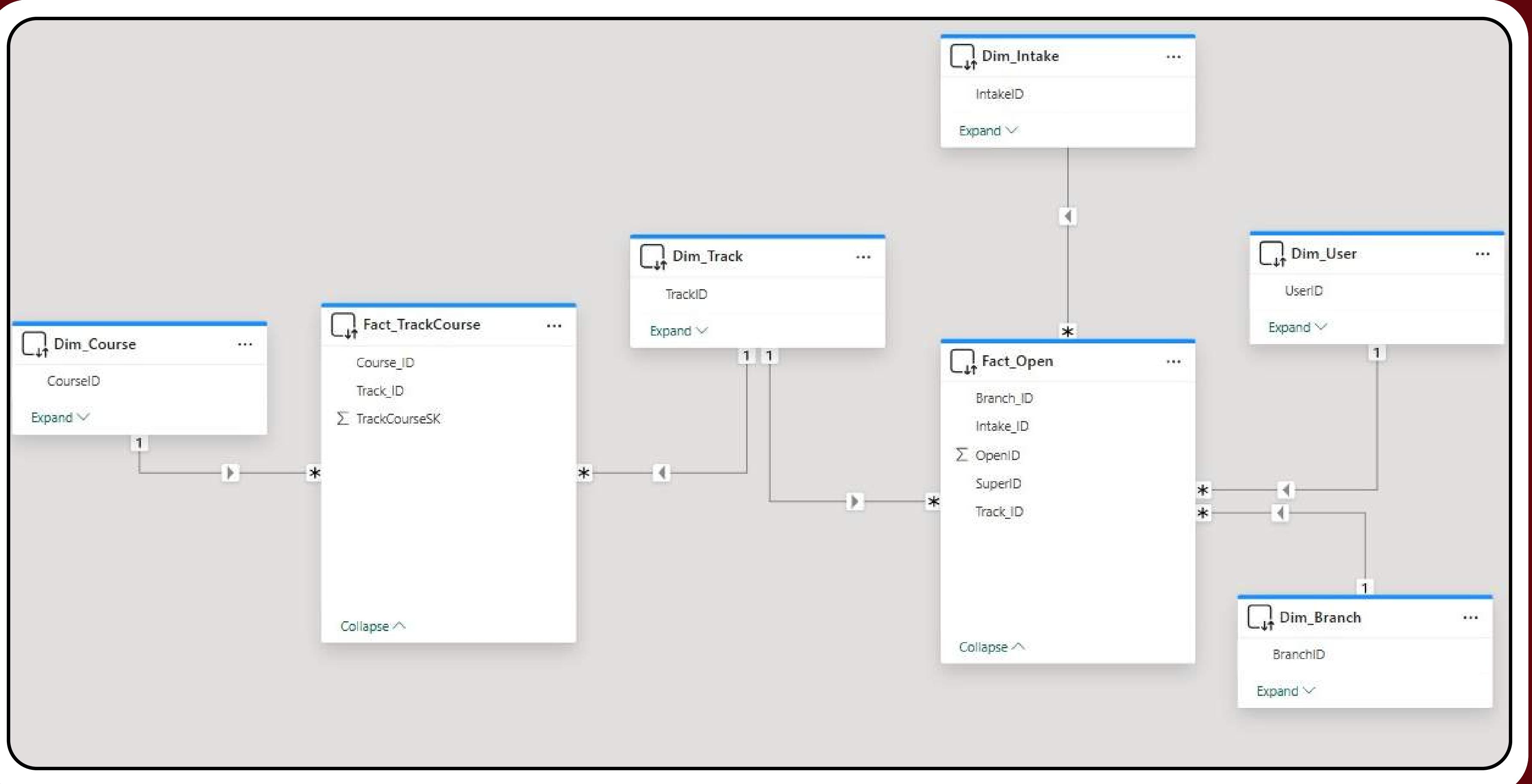
Selected Courses: Database Design & Modeling

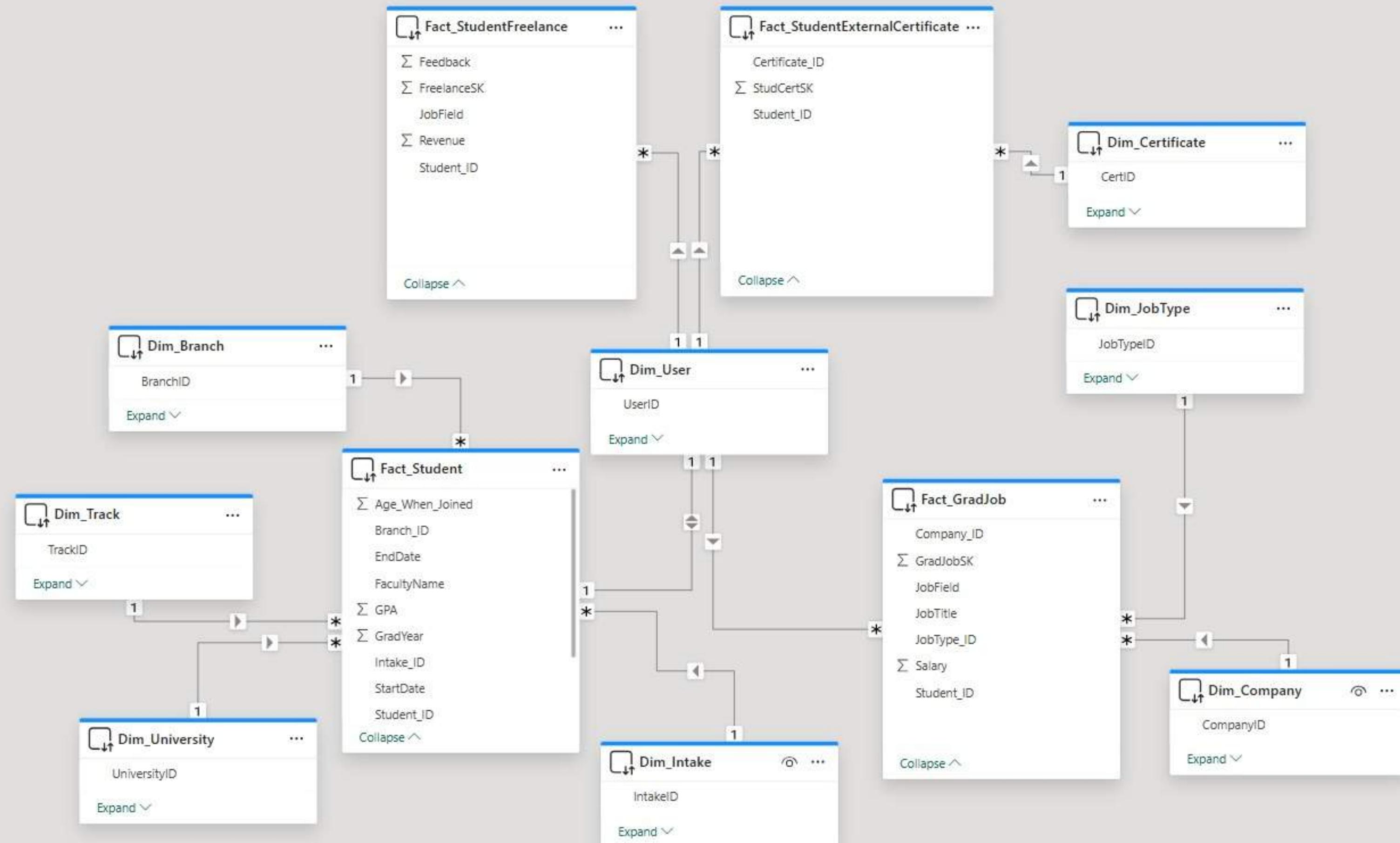
Intake	Course	Exam ID	Question Type	EQ No	Question	Question Degree
1	Database Design & Modeling					
		422 11/27/2022				
			MCQ	5248	In BCNF, if a table is not in BCNF, it implies the existence of:	10
				5249	Consider a table 'Students' with attributes 'StudentID', 'Name', and 'Major'. If 'StudentID' is the primary key, what is the normalization status if 'Name' and 'Major' are functionally dependent on 'StudentID'?	10
				5250	In an Entity-Relationship Diagram (ERD), a diamond shape typically represents:	10
				5251	If a table is in 2NF, it must also be in:	10
				5255	Which of the following is a characteristic of a good database schema?	10
				5256	An attribute that can have multiple values for a single entity is called:	10
			Text			
			TrueFalse			
		902				

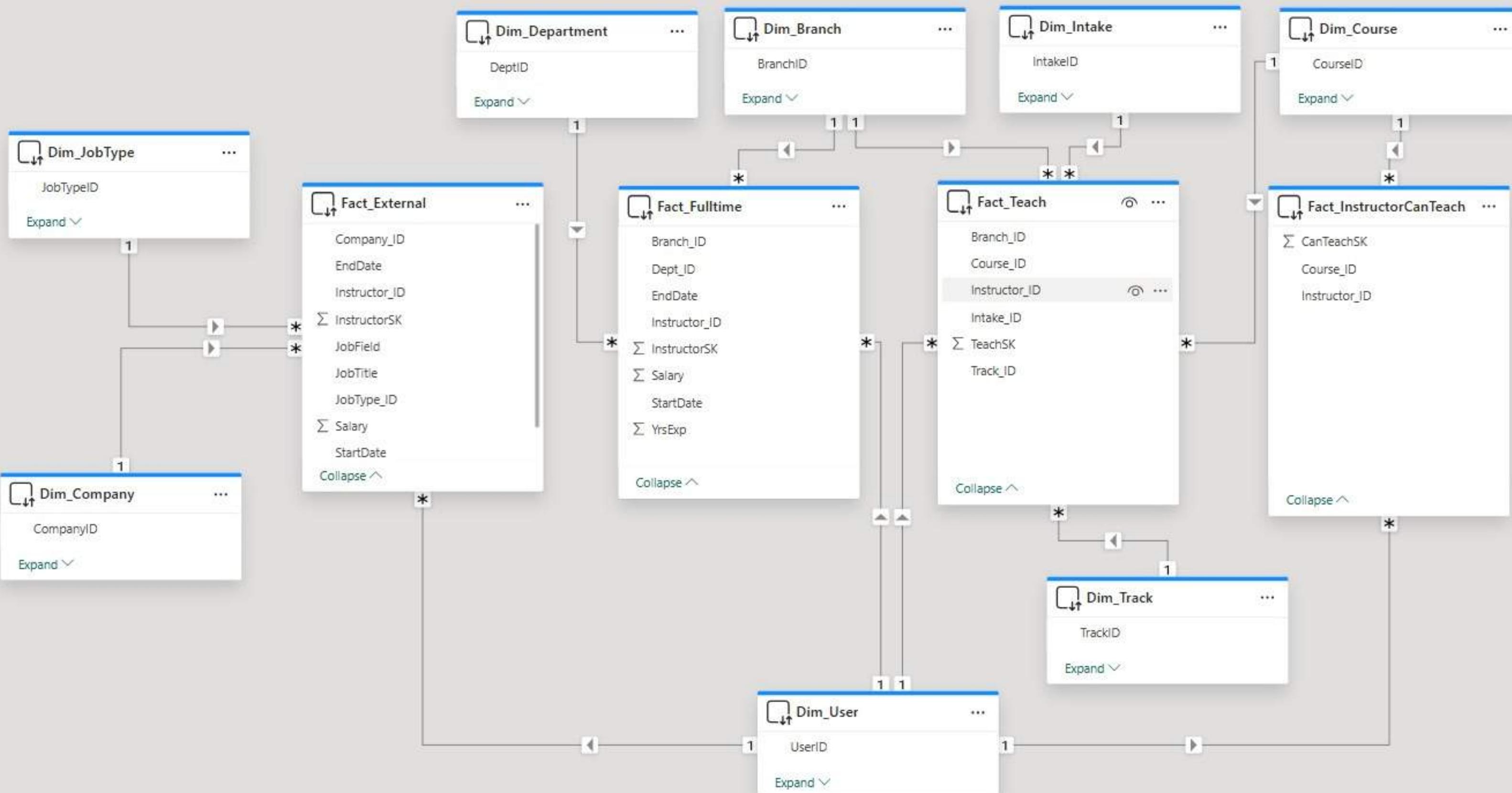
Data Warehouse

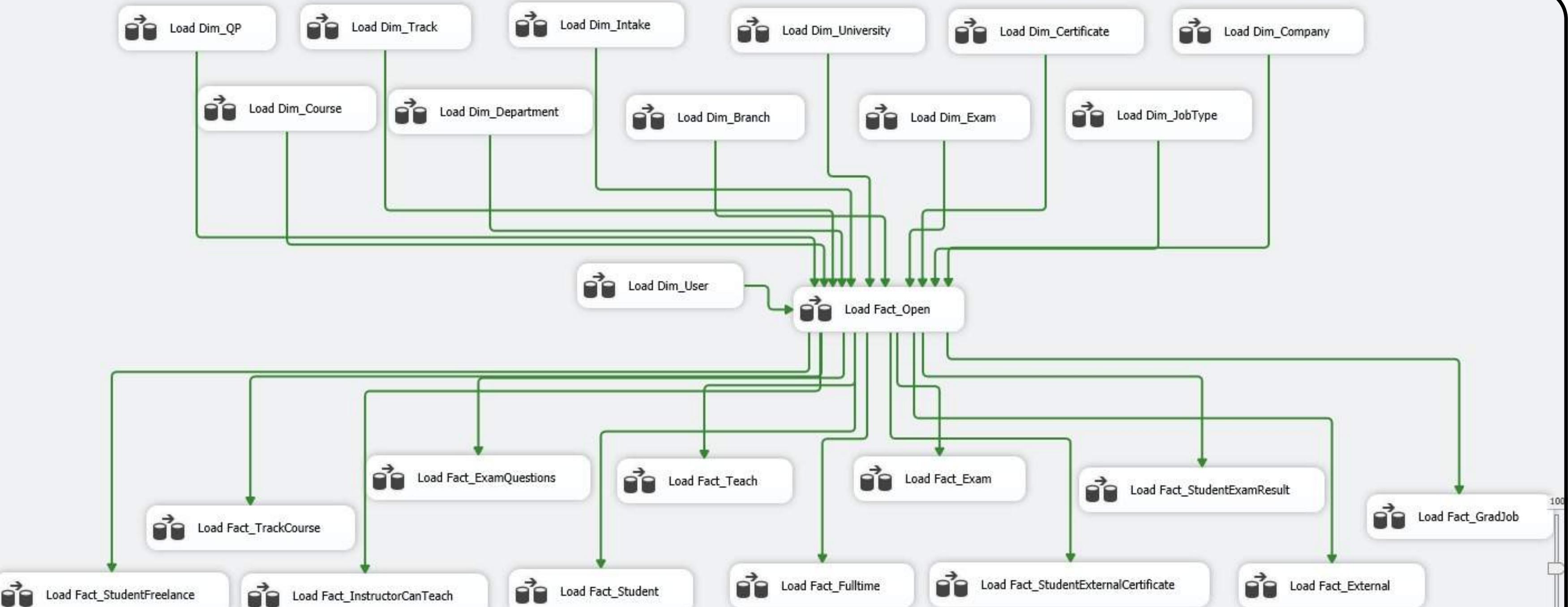












Power BI Dashboard



ITI Examination System DashBoard

Student
Overview

Faculty &
University

Students
Trend

Student
Employment

Hiring
&
Salary

Student
Certifications
Overview

Certifications
by Gender

Freelance
Job Analysis

Freelance
Marketplace
Insights

Freelance
Earners
Analysis

Freelance Job
Temporal
Analysis

Student
Track

Track
Performance

Exam
Overview

Exam
Performance

Exam

Instructor
Overview

Instructor
Salary &
Experience

Branches &
Intakes

Companies &
Govern



Student Overview

Faculty & University

Students Trend

Student Employment

Hiring & Salary

Total No. Of Students

12.00K

Male Students

6582

Current Intake

False

True

Female Students

5418

Avg Students Age When Joined

23

Student Gender Distribution



Students Distribution By Age When Joined



Students Distribution By Governorate

Damietta	Sohag	Cairo	Ismailia	Qena	Tanta	Banha	Alexandria	Matruh	Asyut
476	450	447	442	434	422	419	413		
Sharqia	Gharbia	Luxor	Suez	Beni Suef	Kafr El Sheikh	Beheira	Mansoura	398	395
462	449	445	442	432	421	419	412		
New Valley	North Sinai	Dakahlia	Fayoum	Minya	Port Said	Red Sea	Monufia	395	
451	448	443	439	428	421	418	406	373	



Student Overview

Faculty & University

Students Trend

Student Employment

Hiring & Salary

Total No. Of Students

12.00K

No. Of Faculties

12

Current Intake

False

True

No. Of Universities

14

Average Students GPA

3.12

University & Faculty Map

Egypt

8.60K

Saudi Arabia

1.65K

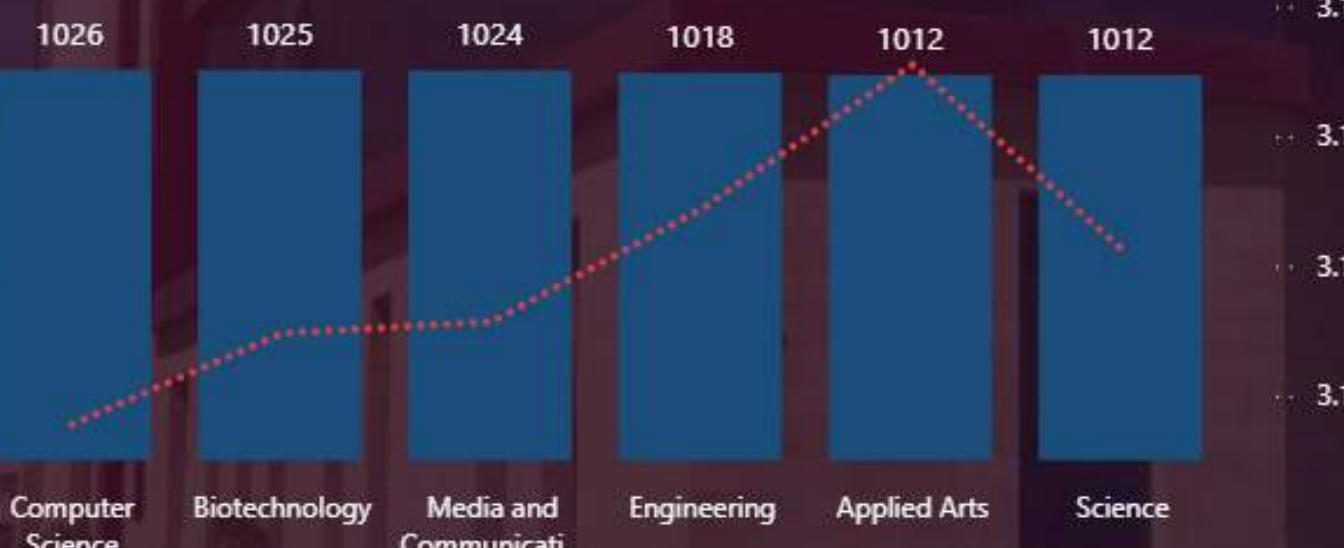
UAE

0.90K

Qatar

0.85K

Top 5 Faculties By No. Of Students & Avg Of GPA



Top 5 Universities By No. Of Students & Avg Of GPA





Student Overview

Faculty & University

Students Trend

Student Employment

Hiring & Salary

Total No. Of Students

12.00K

Male Students %

54.85%

Current Intake

False

True

Female Students %

45.15%

Average Students GPA

3.12

Top 5 Branches By Number Of Students



Top 5 Tracks By Number Of Students



Students Distribution By Address & Gender





Student Overview

Faculty & University

Students Trend

Student Employment

Hiring & Salary

Number of Hired Students

7864

Company Slicer

All

JobType Slicer

All

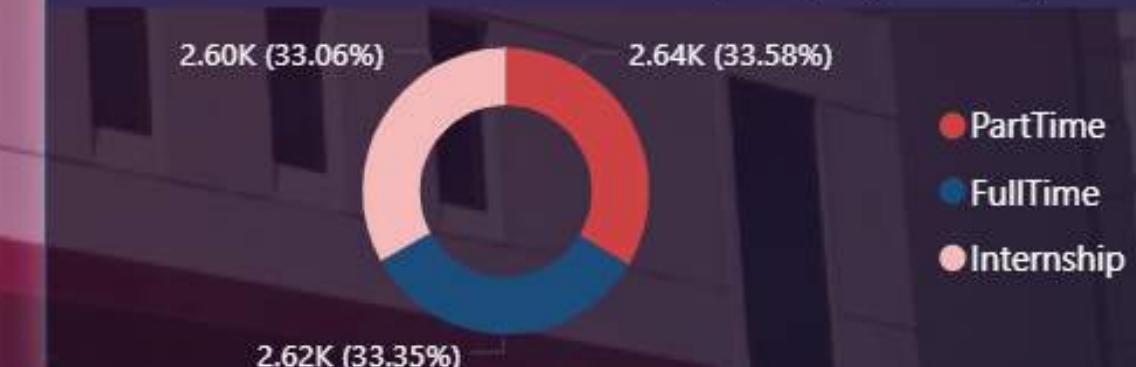
Average Student Salary

£11.26K

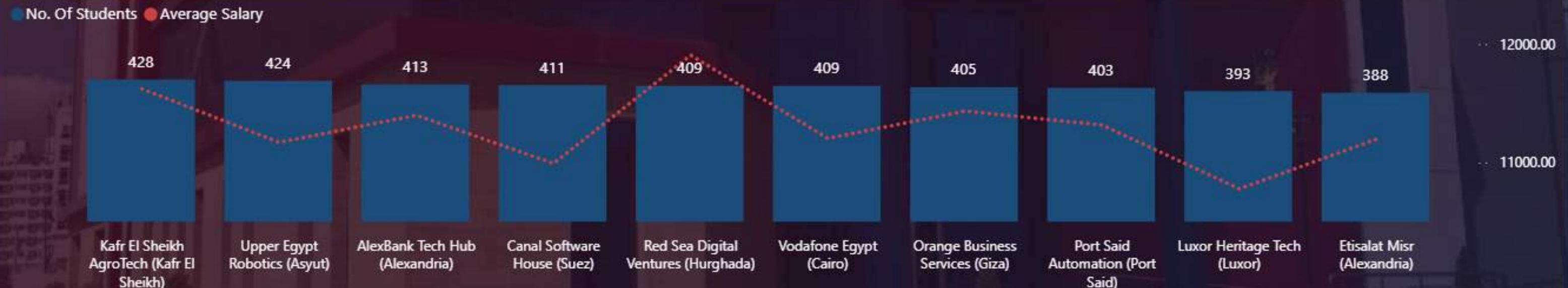
No. of Students by JobField & JobTitle

Data Analytics	Networks	Cybersecurity	Digital Marketing
1.01K	1.01K	0.99K	0.95K
Automation	Project Management	Software Engineering	UX Design
1.01K	1.00K	0.96K	0.95K

Hired Students Distribution By EmploymentType



Top 10 Hiring Companies By No. Of Students





Student Overview

Number of Hired Students

7864

Students Governorate Slicer

All

Students Trend

Student Employment

Hiring & Salary

Average Student Salary

£11.26K

Average Salary Of Students by JobField & JobTitle

Cybersecurity	Digital Marketing	Networks	Data Analytics
11.48K	11.42K	11.34K	11.02K
Automation	UX Design	Project Management	Software Engineering
11.44K	11.37K	11.19K	10.82K

Average Salary Of Students By EmploymentType



Top 10 Hiring Companies By Average Salary

● Average Salary ● No. Of Students

11.9K

11.6K

11.4K

11.3K

11.3K

11.3K

11.2K

11.2K

11.2K

11.0K

400.00

300.00

Red Sea Digital Ventures (Hurghada)

QNB Alahli Innovation Lab (Smart Village)

Orange Business Services (Giza)

Port Said Automation (Port Said)

Sinai Logistics (Ismailia)

Telecom Egypt (Cairo)

Vodafone Egypt (Cairo)

Matruh Smart Ports (Marsa Matruh)

Upper Egypt Robotics (Asyut)

Nile Data Center (6th of October)



Student Certifications Overview

No. Of Certified Students

8474

No. Of Certificates

50

Top Certification Fields by Student Count



Top 5 Certifications by Student Count



Freelance Job Analysis

No. Of Websites

6

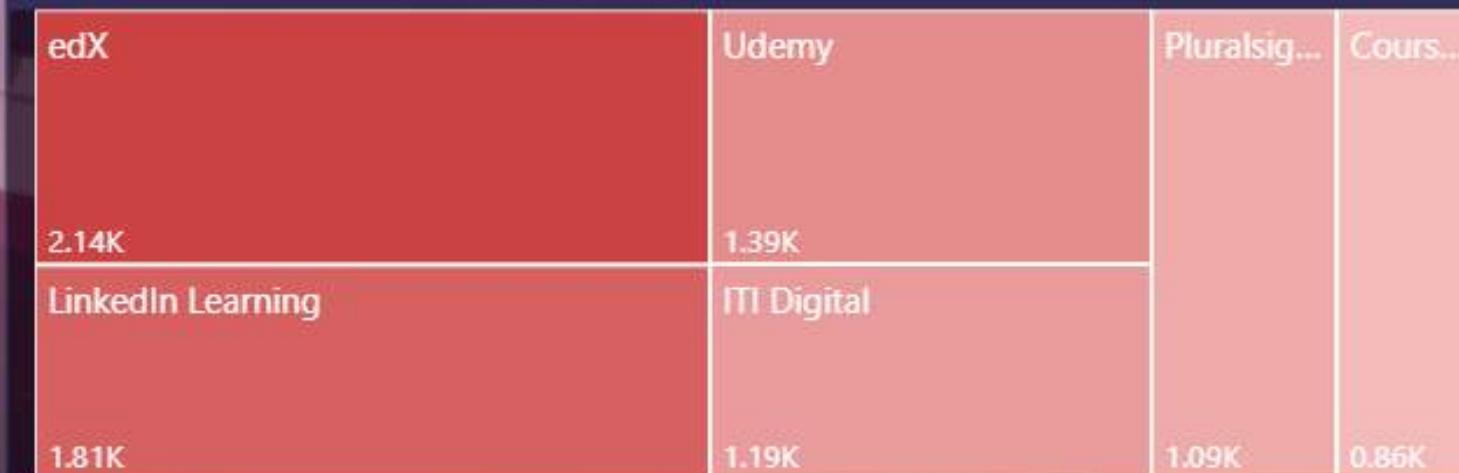
Freelance Marketplace Insights

Freelance Earners Analysis

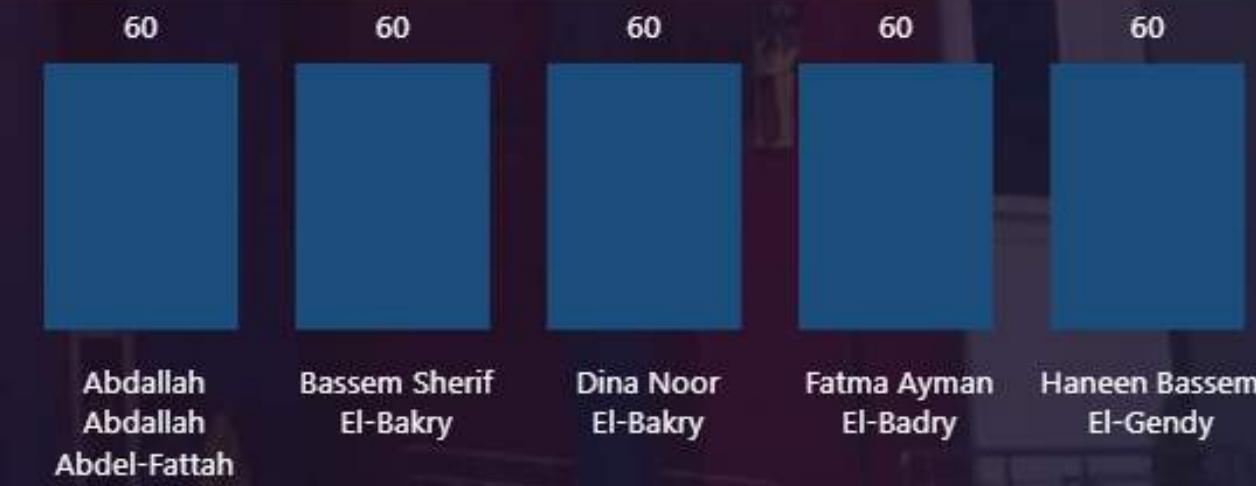
Average Certificate Hours

40.72

Certifications Map By No. Of Students



Top 5 Students by Maximum Certificate Hours





Student
Certifications
Overview

Certifications
by Gender

Freelance
Job Analysis

Freelance
Marketplace
Insights

Freelance
Earners
Analysis

No. Of Certified Students

8474

Total Hours Taken

2036

No. Of Study Fields

8

Study Field Slicer

All



Top 5 Certificates

Female ● Male

107

97

Professional
Certificate 43

100

90

Professional
Certificate 24

117

73

Professional
Certificate 40

104

85

Professional
Certificate 46

112

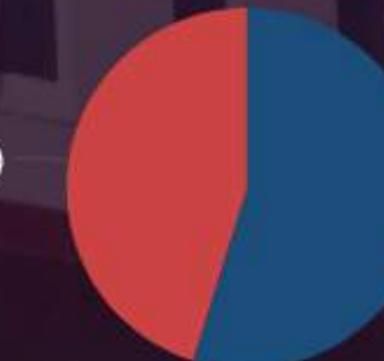
76

Professional
Certificate 49

Certification by Gender

3.83K (45.17%)

4.65K (54.83%)



Gender
Male
Female

Top 5 Study Fields By Male Students

Software Engineering

746

Cybersecurity

680

Networks

658

Automation

625

UX Design

599

Top 5 Study Fields By Female Students

Software Engineering

613

Networks

556

Cybersecurity

517

Automation

506

UX Design

491



Student Certifications Overview

No. Of Certified Students

8474

Number of Freelance Job

7978

Freelance Job Analysis

Freelance Marketplace Insights

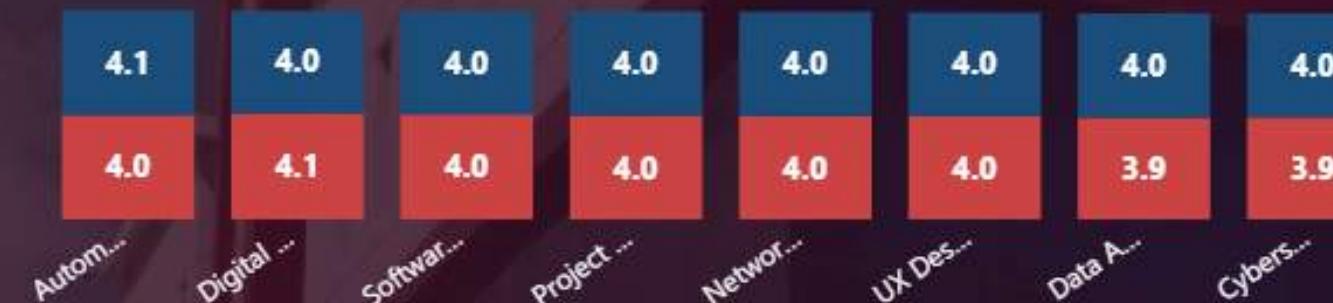
Freelance Earners Analysis

Track Slicer

All

Average Freelance Feedback by JobField and Gender

Female Male



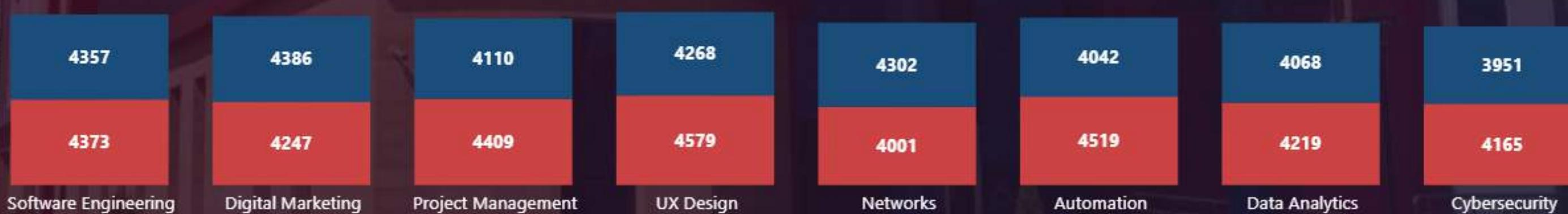
Freelance Job Count by Gender



Gender
Male
Female

Job Field by Average Freelance Revenue

Female Male





Student
Certifications
Overview

Certifications
by Gender

Freelance
Job Analysis

Freelance
Marketplace
Insights

Freelance
Earners
Analysis

Average Revenue

4.27K

Gender Slicer

Female

Male

Field Slicer

All

Average of job feedback

4.00

Freelance Job Count by Job Category

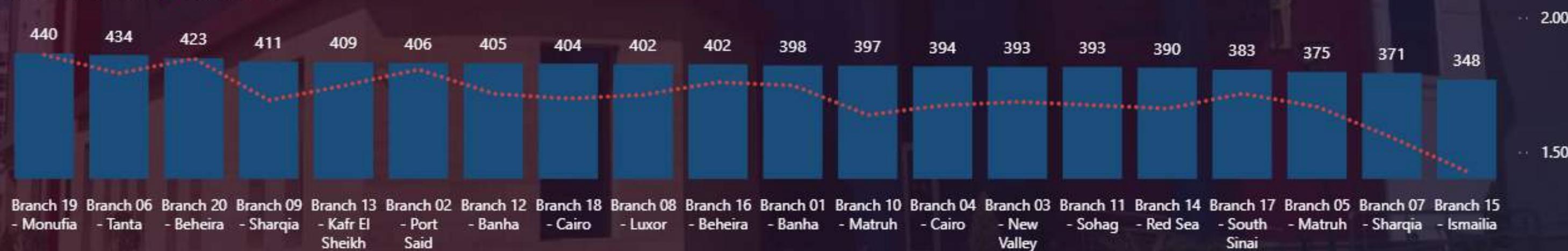


Certified vs. Freelancer



Freelance Count & Total Revenue by Branch

● No. Of Freelance Jobs ● Total Revenue





Student
Certifications
Overview

Certifications
by Gender

Freelance
Job Analysis

Freelance
Marketplace
Insights

Freelance
Earners
Analysis

Total Freelance Revenue

34M

No. Of Freelance Jobs By Male Students

4389

No. Of Freelance Jobs By Female Students

3589

Branch Slicer

All

Top Male Students by Freelance Revenue



Top Male Students by Number of Freelance Jobs



Top Female Students by Freelance Revenue



Top Female Students by Number of Freelance Jobs





Freelance Job
Temporal
Analysis

Student
Track

Track
Performance

Exam
Overview

Exam
Performance

Average Feedback

4.00

Average Job Revenue

4.27K

Number of Freelance Job

7978

Gender Slicer

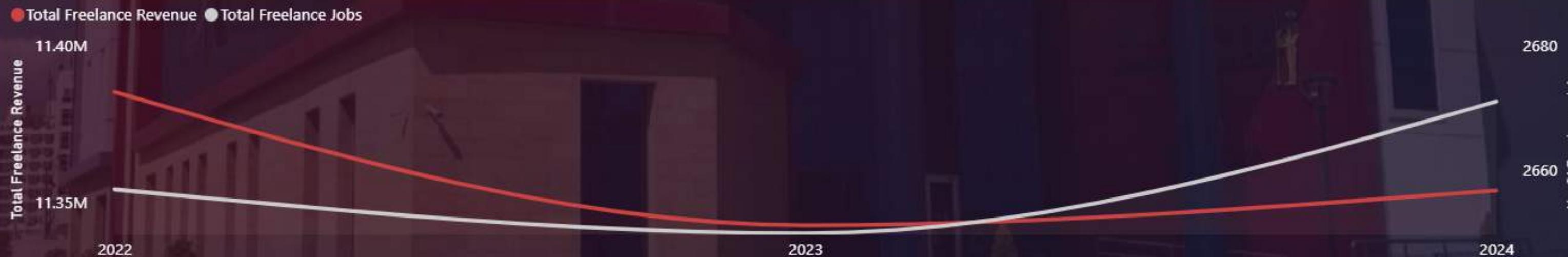
Female

Male

Top Freelance Performers



Freelance Job Analysis Over Time





Freelance Job Temporal Analysis

Student Track

Track Performance

Exam Overview

Exam Performance

Branch Slicer

All ▼

Current Intake

False True

Number of Male Student

6582

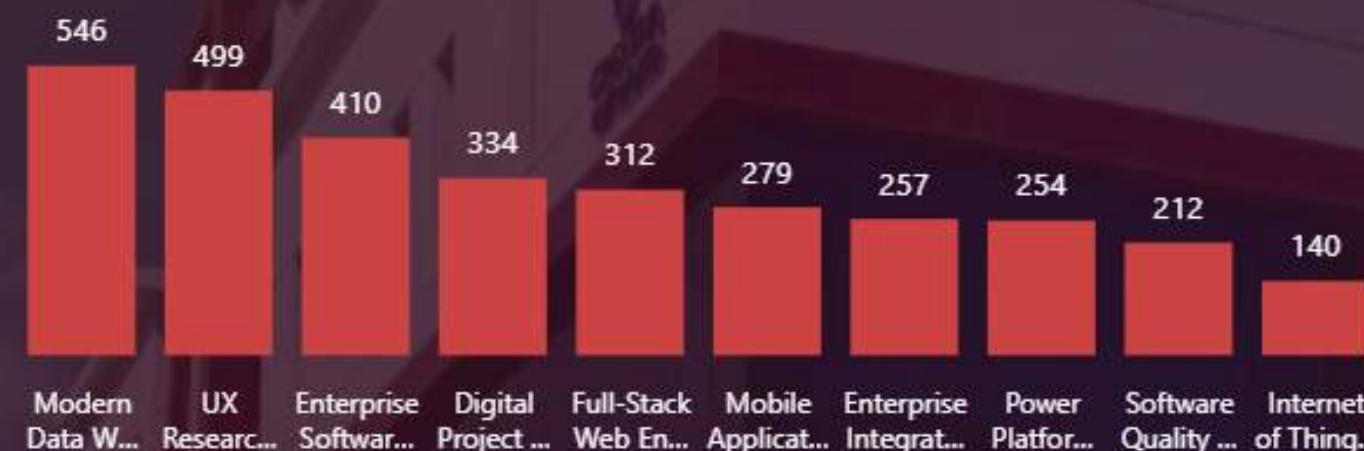
Number of Female Student

5418

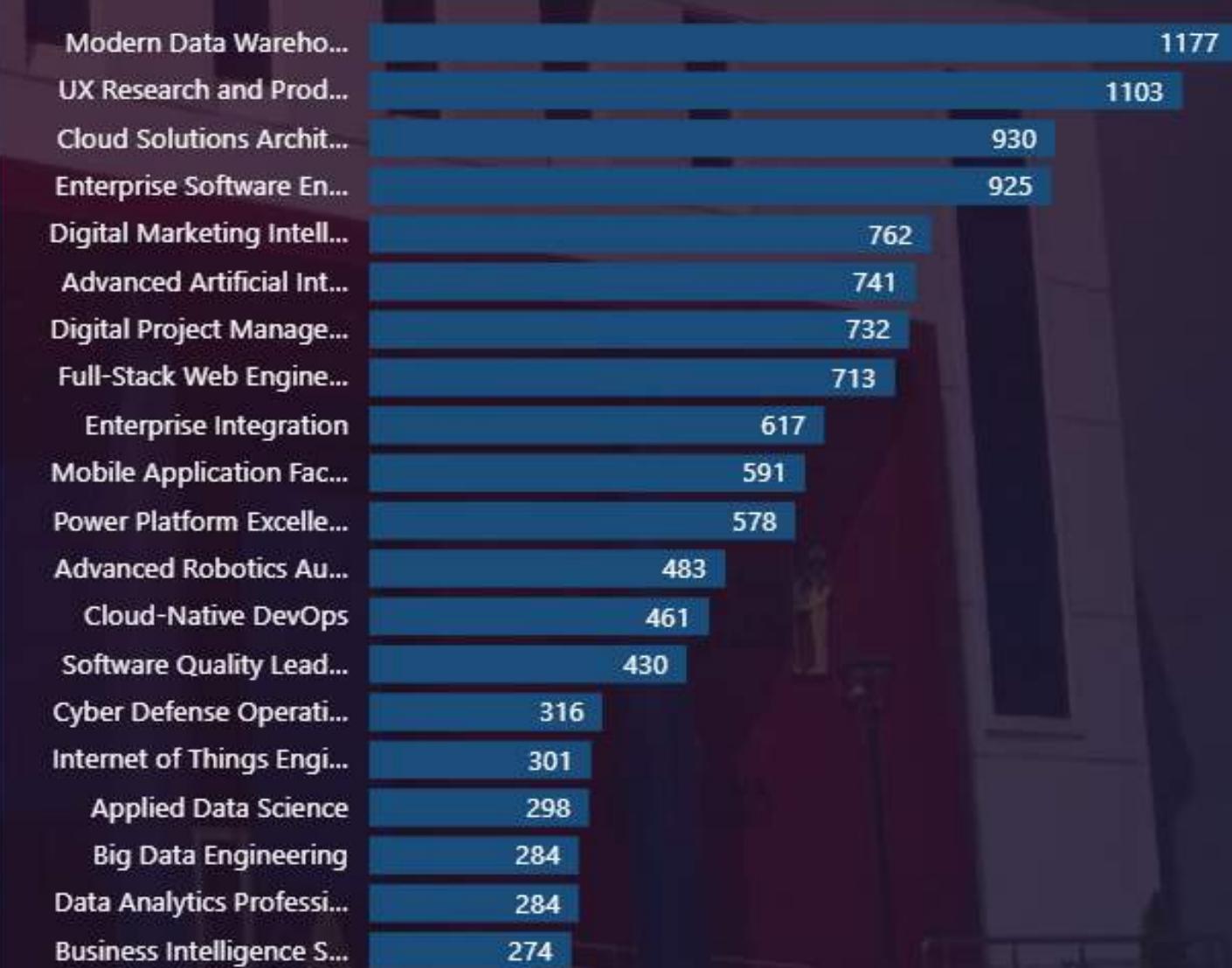
Number of Tracks

20

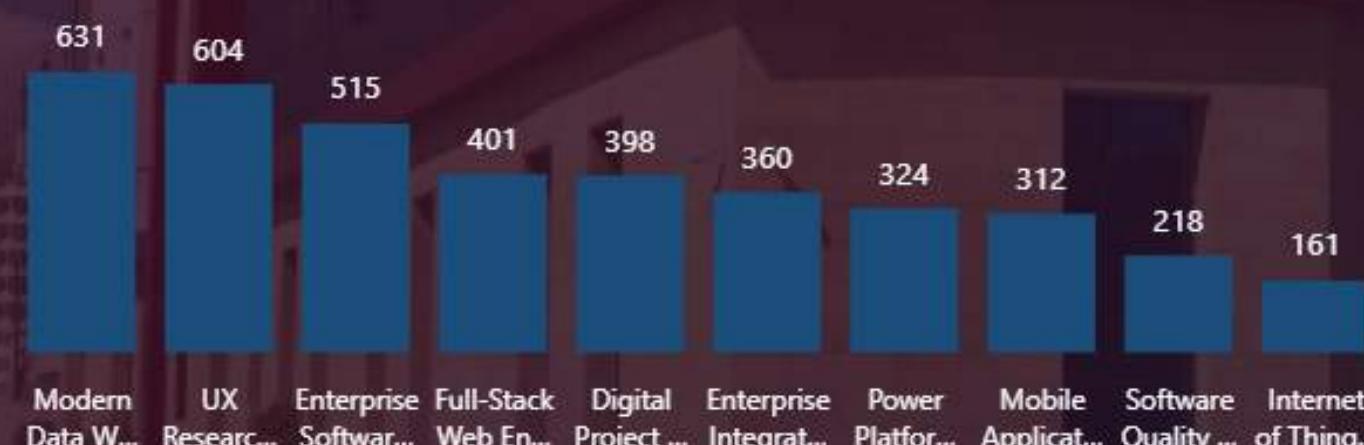
Top 10 Tracks by Female Students



No. Of Students By Track



Top 10 Tracks by Male Students





Freelance Job
Temporal
Analysis

Student
Track

Track
Performance

Exam
Overview

Exam
Performance

Gender Slicer

Female

Male

Current Intake

False

True

Average Course Grade

68.24

Total Branches

20

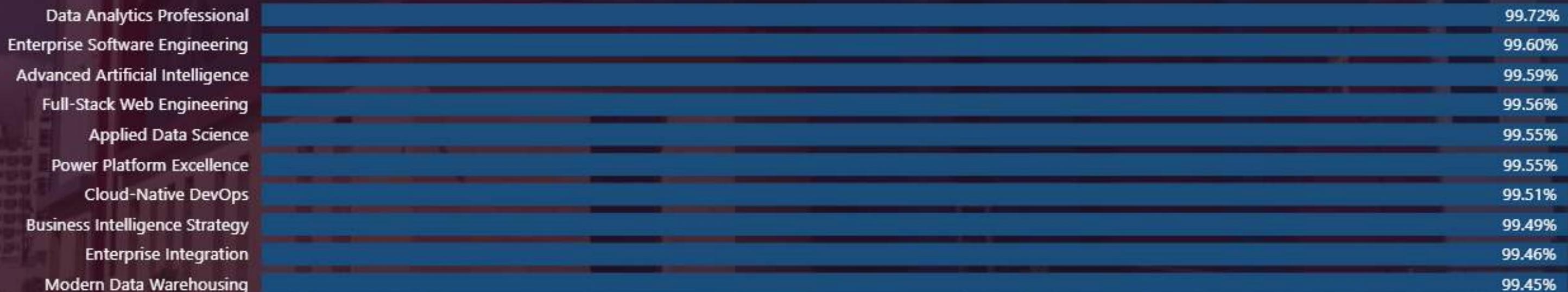
Number of Tracks

20

Number of ITI Students by Certification Source

Branch 12 - Banha	Branch 19 - Monufia	Branch 20 - Beheira	Branch 18 - Cairo	Branch 09 - Sharqia	Branch 05 - Matruh	Branch 04 - Cairo	Branch 01 - Banha	Branch 11 - Sohag	Branch...	Branch...
640	625	614	611	606	601	598	587	577		
Branch 06 - Tanta	Branch 10 - Matruh	Branch 02 - Port S...	Branch 08 - Luxor	Branch 16 - Beheira	Branch 14 - Red Sea	Branch 13 - Kafr El...	Branch 17 - South...	Branch 03 - New ...		
628	614	613	609	604	600	596	587	574	572	544

Exam Pass Rates by Track





Freelance Job
Temporal
Analysis

Student
Track

Track
Performance

Exam
Overview

Exam
Performance

Number of Distinct Exams

8248

Number of Passed Exams

139K

Number of Failed Exams

824

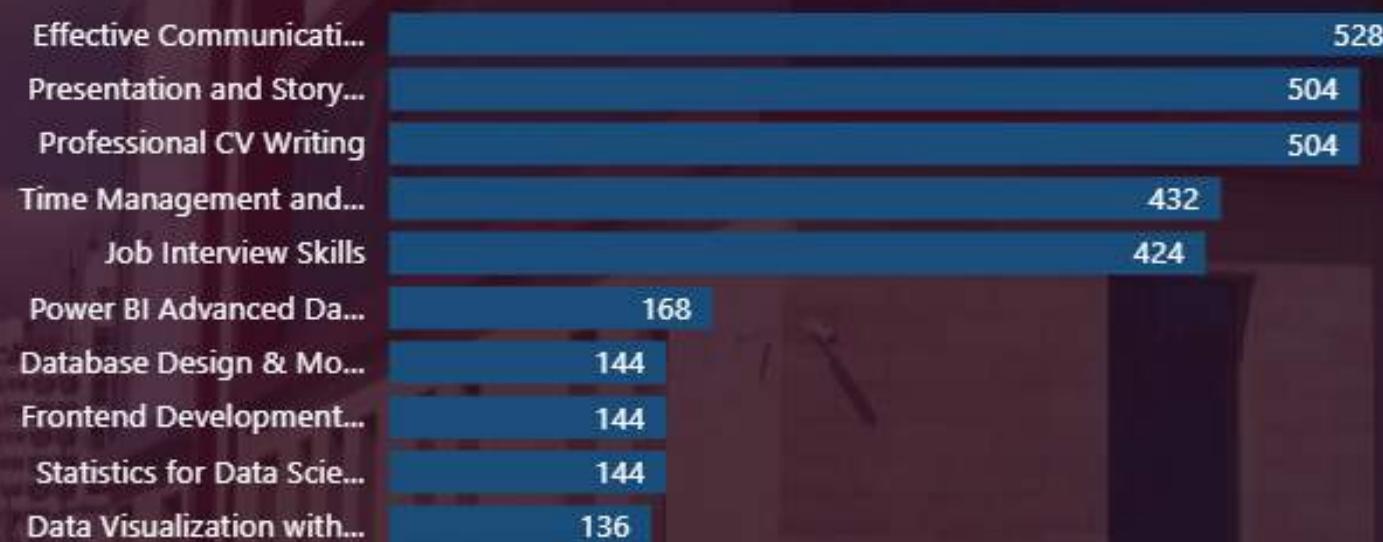
Branch Slicer

All

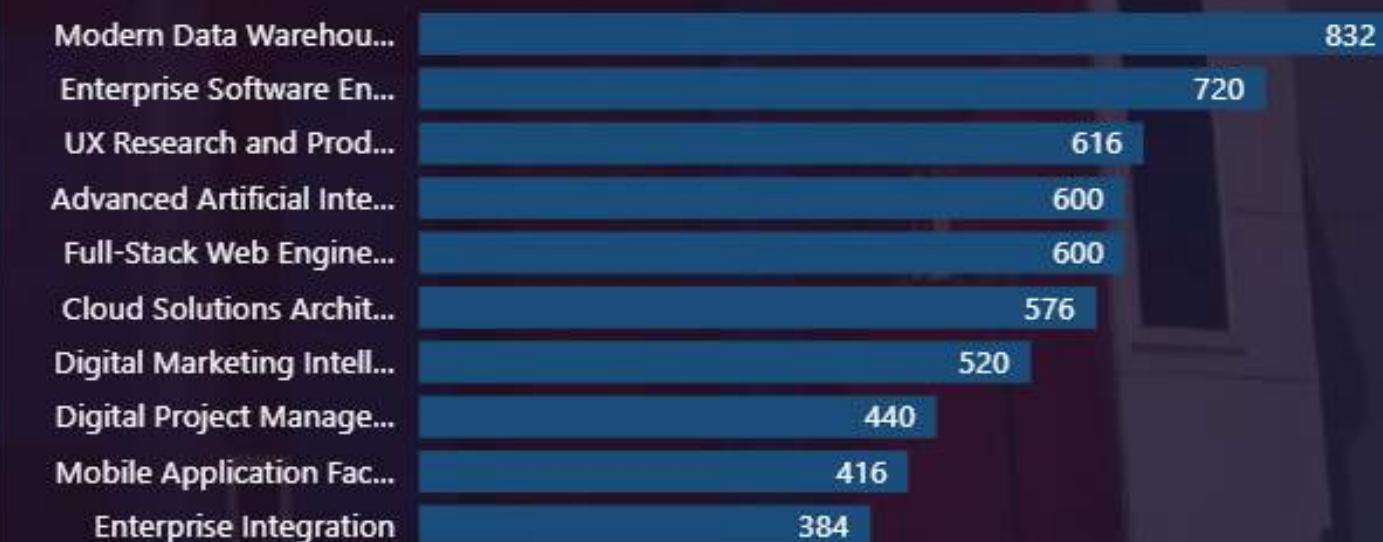
No. Of Exams Over Time



Top 10 Examined Courses



Top 10 Examined Tracks





Freelance Job
Temporal
Analysis

Student
Track

Track
Performance

Exam
Overview

Exam
Performance

Number of Students

12.00K

Students Pass Rate

99.41%

10 Highest Scoring Students

78.15 78.07 77.86 77.71 77.64 77.27 77.25 77.17 76.88 76.71

Dina Seif Yahya Fatma Ayman Heba Malak Abdelra... Mostafa Rana Mahm...
El-Saeidy Hossam... Sherif El... Mostafa... Tarek El... Yassin E... Mahmo... Sherif El... Ayman ... Hossain...

Gender Slicer

Female

Male

Branch Slicer

All

10 Lowest Scoring Students

54.54 54.50 54.25 53.67 53.58 53.50 53.42 53.33 53.07 52.58

Sherif Salma Maher Kareem Malek Judy Nadine Malek Laila Maher
Hossain... Bassem ... Ahmed ... Hossain... Hossain... Maher E... Mostafa... Hossam... Hossain... Kareem ...

10 Highest Scoring Governorates

68.42 68.38 68.35 68.35 68.35 68.34 68.32 68.31 68.30 68.30

Ismailia Fayoum Beheira Asyut Matruh Cairo Qena Tanta Gharbia Dakahlia

10 Lowest Scoring Governorates

68.22 68.17 68.16 68.13 68.12 68.12 68.07 68.06 68.06 68.04

Beni Suef Mansoura Kaf El Sheikh Suez Luxor Port Said Red Sea Sharqia Alexandria Damietta



Exam

Instructor Overview

Instructor Salary & Experience

Branches & Intakes

Companies & Govern

Number of Students

12.00K

Students Pass Rate

99.41%

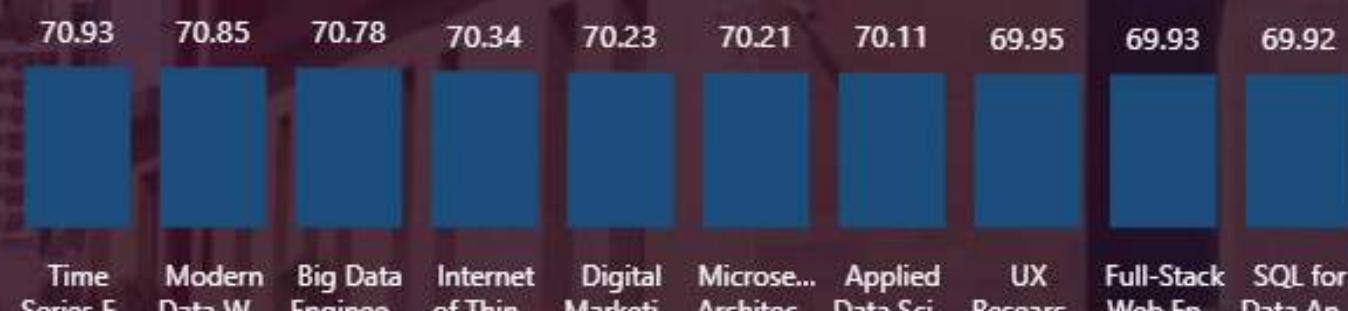
Highest Scoring Tracks



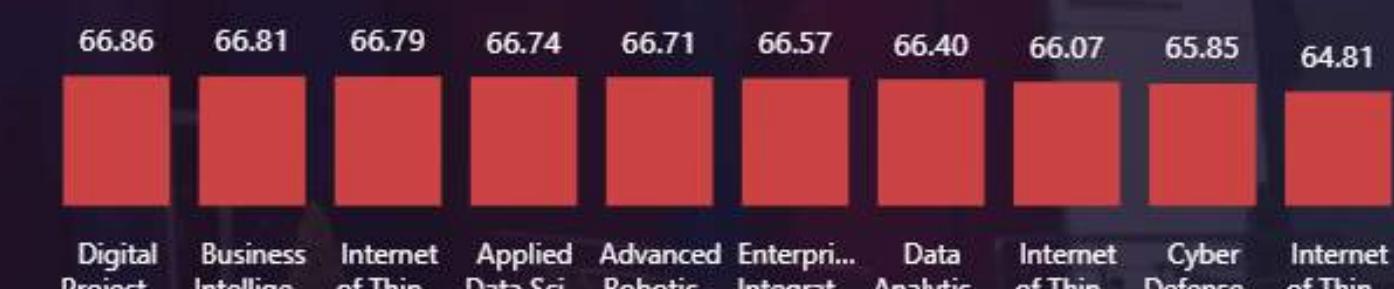
Lowest Scoring Tracks



10 Highest Scoring Courses



10 Lowest Scoring Courses





Exam

Instructor Overview

Instructor Salary & Experience

Branches & Intakes

Companies & Govern

No. Of Fulltime Instructors

70

No. Of External Instructors

130

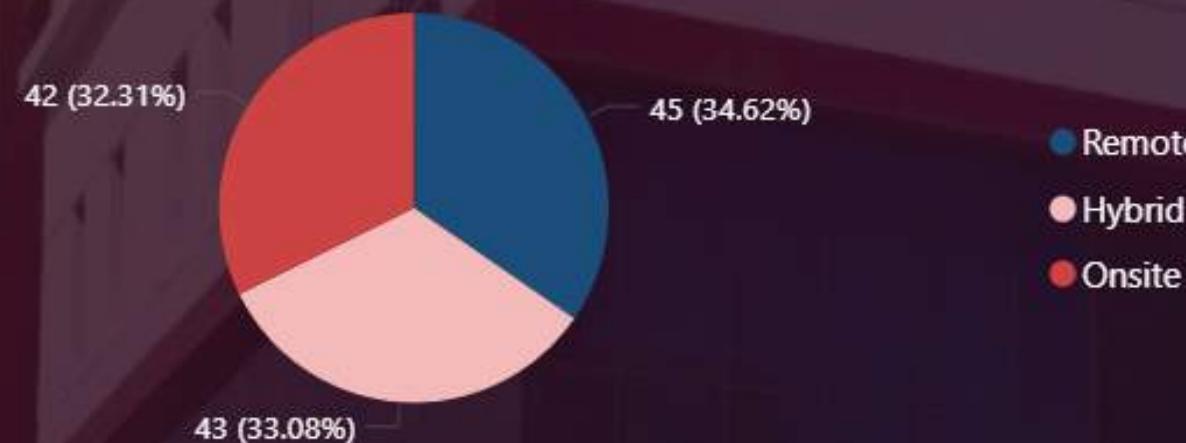
Department Slicer

All

Branch Slicer

All

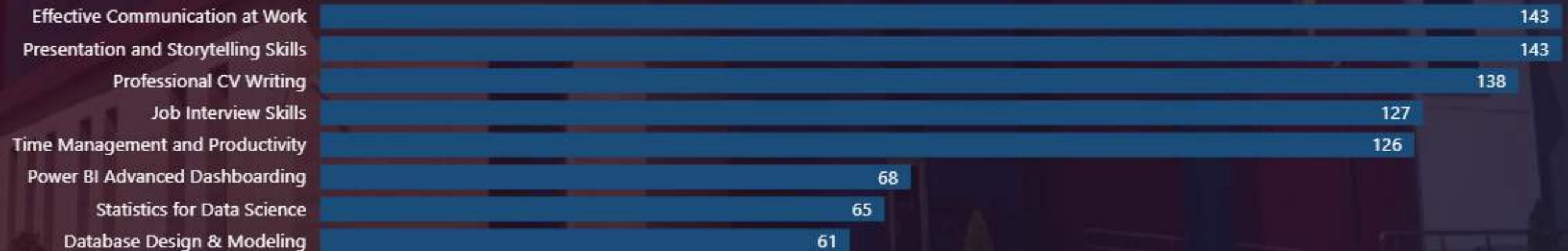
External Instructors by JobType



Instructors by Genders



No. Of Instructors for each Course





Exam

Instructor Overview

Instructor Salary & Experience

Branches & Intakes

Companies & Govern

AVG Instructor Experience

16.65

Max Instructor Salary

35K

Min Instructor Salary

12K

Average Instructors Salary

23.80K

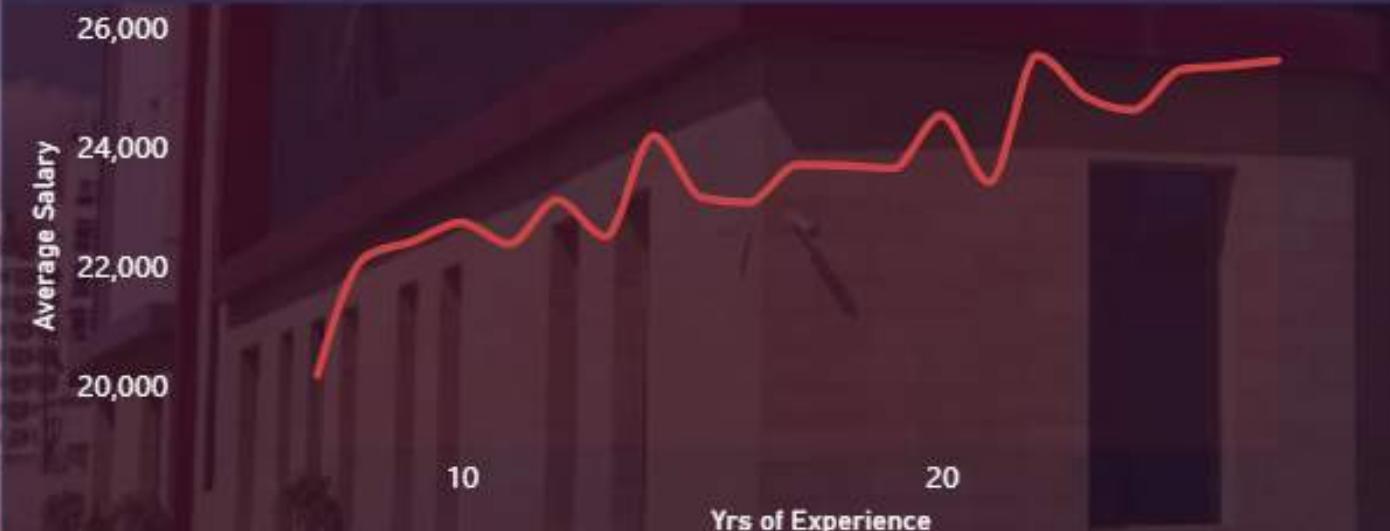
Average Salaries for each Department

Digital Marketin...	25.07K
Cybersecurity	24.56K
Project Manage...	24.00K
Software Engine...	23.98K
IoT & Embedde...	23.94K
Automation & R...	23.91K
Design & UX	23.52K

AVG Instructors Salary by Genders



Yrs Exp Vs Salary



Instructors Taught Hours & Salaries

UserID	FullName	Instructor Taught Hours	Instructor Salary
218	Naglaa Abdallah Morsi	702	34.72K
193	Mai Kareem El-Gaafari	656	34.65K
78	Naglaa Yassin El-Gaafari	687	33.70K
65	Abdallah Sherif El-Bakry	354	33.64K
75	Laila Noor El-Kholy	743	33.53K
Total			114548 4433.20K



Exam

Instructor Overview

Instructor Salary & Experience

Branches & Intakes

Companies & Govern

Total Branches

20

Total Departments

9

Current Intake

False

True

Total Courses

154

Average Course Hours

30.95

No. Of Branches in each Governorate

Banha	2
Beheira	2
Cairo	2
Matruh	2
Sharqia	2
Ismailia	1
Kafr El Sheikh	1
Luxor	1

Students Distribution By Intake



Students Distribution

Banha	Matruh	Sharqia	Monufia	Luxor	Kafr El Sheikh	Sohag	New Valley
1.23K	1.22K	1.18K	0.63K	0.61K	0.60K	0.58K	0.57K
Beheira	Cairo	Tanta	Port Said	Red Sea	South Sinai	Ismailia	
1.22K	1.21K	0.63K	0.61K	0.60K	0.59K	0.54K	



Exam

Instructor Overview

Instructor Salary & Experience

Branches & Intakes

Companies & Govern

Average Salaries

7.43K

Marital Status Slicer

All

Gender Slicer

Female

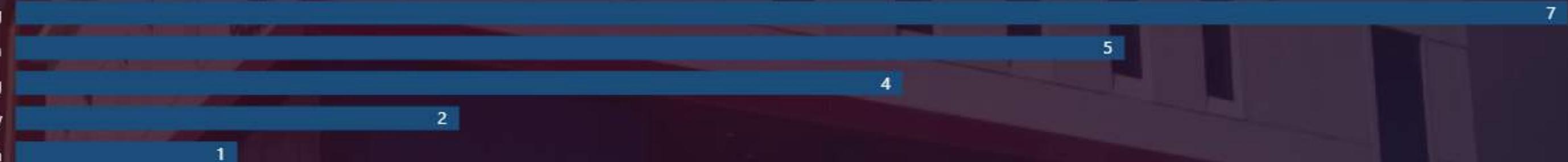
Male

No. Of Companies

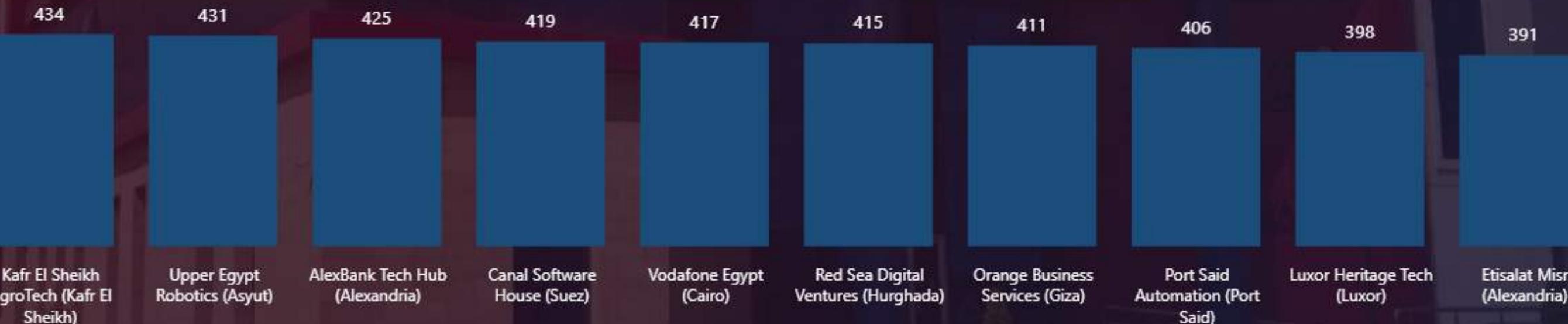
20

Number of Companies by Company Field

Banking
Telecom
Consulting
Technology
Education



Top 10 Hiring Companies



Website



Mostafa Yahya Morsi

Branch Admin

Branch 07

[System Overview](#)[Student Data \(CRUD\)](#)[Instructor Data \(CRUD\)](#)[Insert New User](#)[Access to Feedback](#)

Student Data Management

View, edit, or delete student profiles across all branches and tracks.

Search & Filter Students

Name/ID Search:

Enter name or ID

Track Filter:

Enterprise Software Engineering

Intake:

Intake 4 (Active)

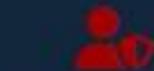
Status:

All

[Apply Filter](#)

Existing Student Records

ID	Full Name	Track	Intake	Status	Actions
479	Yahya Ahmed El-Mansi	Enterprise Software Engineering	4	Active	Edit
542	Judy Abdelrahman El-Sayed	Enterprise Software Engineering	4	Active	Edit
546	Yahya Tarek El-Hawary	Enterprise Software Engineering	4	Active	Edit
1243	Hossam Abdallah El-Amin	Enterprise Software Engineering	4	Active	Edit
1579	Haneen Khaled Morsi	Enterprise Software Engineering	4	Active	Edit
1912	Laila Hossain El-Badry	Enterprise Software Engineering	4	Active	Edit
1914	Tarek Ahmed El-Damanhury	Enterprise Software Engineering	4	Active	Edit
2345	Ayman Omar El-Bakry	Enterprise Software Engineering	4	Active	Edit
2895	Malek Maher El-Ajami	Enterprise Software Engineering	4	Active	Edit
5833	Mariam Noor El-Gaafari	Enterprise Software Engineering	4	Active	Edit
6239	Jamila Ahmed El-Ajami	Enterprise Software Engineering	4	Active	Edit



Mostafa Yahya Morsi

Branch Admin

Branch 07

[System Overview](#)[Student Data \(CRUD\)](#)[Instructor Data \(CRUD\)](#)[Insert New User](#)[Access to Feedback](#)

Insert New User

Create new accounts for students, instructors, or administrators.

User Details

User Role:

Full Name:

Email (Username):

Password:

Phone:

Full Address:

Governorate:

Birth Date:

 mm/dd/yyyy

Gender:

Marital Status:

Number of Kids:

0

Student Details

Track:

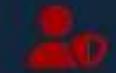
University:

Faculty:

Graduation Year:

GPA:

Instructor Details



Mostafa Yahya Morsi
Branch Admin

Branch 07

System Overview

Student Data (CRUD)

Instructor Data (CRUD)

Insert New User

Access to Feedback

System Feedback Monitoring

Review feedback, complaints, and suggestions submitted by users (students and staff).

Filter Feedback

Status:

All

Keyword Search:

Search by content or sender

Filter Feedback

Received Feedback

ID	Type	Sender	Summary	Status	Actions
No feedback found.					

Welcome,
Rim Nour

Weekly Schedule

Added Courses

Subjects Marks

Exam

Grade Scores

(Jack)

Weekly Schedule

This section displays your weekly classes and meetings. (Ready for dynamic data from Backend)

Date	Time	Course	Branch
12/10/2025 (Wednesday)	09:00:00 - 12:00:00	Web Security & OWASP	Branch 14
	13:00:00 - 16:00:00	Web Security & OWASP	
12/15/2025 (Monday)	09:00:00 - 12:00:00	Web Security & OWASP	Branch 14
	13:00:00 - 16:00:00	Web Security & OWASP	
12/16/2025 (Tuesday)	09:00:00 - 12:00:00	Web Security & OWASP	Branch 14
	13:00:00 - 16:00:00	Web Security & OWASP	
12/17/2025 (Wednesday)	09:00:00 - 12:00:00	Web Security & OWASP	Branch 14



Welcome.

Karim Nour

Weekly Schedule

Assigned Courses

Students Marks

Create Exam

 Average Scores
(Feedback)

Assigned Courses

List of courses you are teaching this term, along with student count.

All branches



All tracks



4



Effective Communication at Work

Track: Cloud Solutions Architecture

Branch: Branch 19

Intake: Intake 4

Students: 32

Active

Effective Communication at Work

Track: Full-Stack Web Engineering

Branch: Branch 18

Intake: Intake 4

Students: 38

Active

Effective Communication at Work

Track: UX Research and Product Design

Branch: Branch 12

Intake: Intake 4

Students: 47

Active

Data Visualization with Tableau

Track: Digital Marketing Intelligence

Branch: Branch 20

Intake: Intake 4

Students: 42

Active

Time Management and Productivity

Track: Digital Project Management

Branch: Branch 16

Intake: Intake 4

Students: 32

Active

Web Security & O

Track: Full-Stack Web Eng

Branch: Branch 14

Intake: Intake 4

Students: 40

Active

Welcome,
Karim Nour[Weekly Schedule](#)[Assigned Courses](#)[Students Marks](#)[Create Exam](#)[Average Scores
\(Feedback\)](#)

Students Marks

View and edit student marks for various assessments.

Branch 10

Cloud Solutions Architect

Azure Data Engineering

Student	Course	Type	Score
Abdallah Bassem El-Khashab	Azure Data Engineering	Exam #3851	68/100
Abdallah Khaled El-Naggar	Azure Data Engineering	Exam #3851	40/100
Abdallah Khaled El-Naggar	Azure Data Engineering	Exam #7975	67/100
Abdallah Malek El-Saeidy	Azure Data Engineering	Exam #3851	62/100
Abdallah Yahya El-Saeidy	Azure Data Engineering	Exam #3851	66/100
Ahmed Yassin El-Khashab	Azure Data Engineering	Exam #7975	75/100
Ahmed Yassin El-Khashab	Azure Data Engineering	Exam #3851	59/100
Basma Hossain El-Bakry	Azure Data Engineering	Exam #7975	80/100
Basma Hossain El-Bakry	Azure Data Engineering	Exam #3851	55/100
Basma Tarek El-Gendy	Azure Data Engineering	Exam #3851	79/100
Bassem Abdelrahman El-Hawary	Azure Data Engineering	Exam #3851	76/100
Dina Tarek El-Gendy	Azure Data Engineering	Exam #3851	63/100
Doaa Abdallah El-Bakry	Azure Data Engineering	Exam #3851	54/100
Doaa Abdallah El-Bakry	Azure Data Engineering	Exam #7975	75/100
Fatma Abdelrahman El-Amin	Azure Data Engineering	Exam #3851	70/100
Fatma Bassem Morsi	Azure Data Engineering	Exam #3851	79/100
Haneen Abdallah El-Ajami	Azure Data Engineering	Exam #3851	53/100

Welcome,
Karim Nour[Weekly Schedule](#)[Assigned Courses](#)[Students Marks](#)[Create Exam](#)[Average Scores
\(Feedback\)](#)

Create New Exam

Create an exam for one of your courses and attach questions from the pool.

Exam Title (optional):

e.g., Final Exam - MERN Stack

Branch:

Branch 12

Track:

UX Research and Product Design

Intake:

Intake 4 (Active)

Course:

Select a Course

Exam Date:

mm/dd/yyyy

Type:

Normal

Start Time:

--:-- --

End Time:

--:-- --

Total Score:

100

Question Pool

[Select All](#)[Clear](#)

Auto count: 10

[Auto pick](#)

Type:

All

▼

Search:

Quick degree: 1 2 5 10 Selected: 0 Degrees: 0

Select All Clear Auto count: 10 Auto pick Type:

All Search: Search question...

Quick degree: 1 2 5 10 Selected: 10 • Degrees: 100

MCQ Which OWASP Top 10 category focuses on flaws that allow attackers to interfere with the application's ability to handle requests, potentially leading to denial of service? Degree: 10

- Security Misconfiguration
- Injection
- Broken Access Control
- Server-Side Request Forgery (SSRF) (correct)

MCQ What is the primary purpose of input validation in web security? Degree: 10

- To encrypt user data
- To ensure user data conforms to expected form (correct)
- To automatically update software components
- To perform database backups

MCQ Cross-Site Scripting (XSS) attacks are most effectively mitigated by: Degree: 1

- Regularly updating server software
- Server-side input sanitization and client-side (correct)
- Using HTTPS for all connections
- Implementing strong password policies

MCQ Which type of XSS involves injecting malicious scripts into a web page that are then executed by other users' browsers when they visit the page? Degree: 1

- Reflected XSS
- DOM-based XSS
- Blind XSS
- Stored XSS (correct)

MCQ SQL Injection attacks exploit vulnerabilities in how an application handles: Degree: 1

- Database queries (correct)
- Network protocols
- User sessions
- File uploads



Welcome:

Karim Nour

Weekly Schedule

Assigned Courses

Students Marks

Create Exam

 Average Scores
(Feedback)

Average Scores (Feedback Card)

Finished-course averages with branch/track/intake filters.

All branches

All tracks

4

Data Visualization with Tableau

Track: Digital Marketing Intelligence

Branch: Branch 20

Intake: 4

Avg Score

64%

Fail Rate

26%

Effective Communication at Work

Track: Cloud Solutions Architecture

Branch: Branch 19

Intake: 4

Avg Score

65%

Fail Rate

26%

Effective Communication at Work

Track: Full-Stack Web Engineering

Branch: Branch 18

Intake: 4

Avg Score

67%

Fail Rate

25%

Effective Communication at Work

Track: UX Research and Product Design

Branch: Branch 12

Intake: 4

Avg Score

69%

Fail Rate

22%

Mobile Application Fa Workshop

Track: Mobile Applica

Branch: Branch 11

Intake: 4

Avg Score

Fail Rate

 Overview My Exams Results Exam Marks Finished Courses Upcoming Courses Schedule

Student

Shahd Khaled El-Saeidy

Track: Digital Marketing Intelligence

Branch: Branch 03

Department: Digital Marketing Tech

Pending Freelance

0

Pending Grad Jobs

1

Pending Certificates

0

 Pending Items

Status of your submitted items.

Graduate Job

Submitted: 11/27/2025, 4:22:23 PM

Company: Smaii Logistics (smaii)

Title: Cloud Architect | Field: Data Analytics

Type ID: 3 | Salary: 6654645

Proof: [View](#)

 Overview My Exams Results Exam Marks Finished Courses Upcoming Courses Schedule Results

Your graded exams with scores and percentages.

Digital Marketing Intelligence: Capstone Project

Date: 3/2/2025 • c

86/100

Digital Marketing Intelligence: Industry Simulation

Date: 2/16/2025 • c

77/100

Digital Marketing Intelligence: Case Studies Studio

Date: 2/6/2025 • c

62/100

Power BI Advanced Dashboarding

Date: 1/19/2025 • n

95/100

**Digital Marketing Intelligence: Applied Practice Workshop**

Date: 1/12/2025 • c

64/100

Digital Intelligence Lab

Date: 12/1/2024 • n

80/100

Data Visualization with Tableau

Date: 11/29/2024 • n

80/100

Job Interview Skills

Date: 11/17/2024 • c

72/100

Presentation and Storytelling Skills

Date: 11/17/2024 • n

61/100

Effective Communication at Work

Date: 11/10/2024 • c

65/100

**Professional CV Writing**

Date: 10/25/2024 • n

68/100

Digital Intelligence Topics

Date: 10/1/2024 • n

62/100

 Overview My Exams Results Exam Marks Finished Courses Upcoming Courses Schedule Feedback

Upcoming Courses

Next courses and start dates:

Time Management and Productivity

Backend Development – Node.js

Enterprise Integration: Industry Simulation

Enterprise Integration: Advanced Topics Clinic

[Overview](#)[My Exams](#)[Results](#)[Exam Marks](#)[Finished Courses](#)[Upcoming Courses](#)[Schedule](#)[Feedback](#)

Finished Courses

Courses you completed with grades and completion year.

Professional CV Writing

Exam: in on 2025-09-07

Score: 66 / 100

[Pass](#)

Enterprise Integration: Foundations Lab

Exam: in on 2025-09-14

Score: 66 / 100

[Pass](#)

Enterprise Integration: Applied Practice Workshop

Exam: c on 2025-10-03

Score: 84 / 100

[Pass](#)

Frontend Development – React.js

Exam: in on 2025-10-10

Score: 76 / 100

[Pass](#)

Enterprise Integration: Case Studies Studio

Exam: c on 2025-10-30

Score: 64 / 100

[Overview](#)[My Exams](#)[Results](#)[Exam Marks](#)[Finished Courses](#)[Upcoming Courses](#)[Schedule](#)[Feedback](#)

Schedule

Your weekly sessions and rooms:

Date	Time	Title	Room
12/10/2025 (Wednesday)	09:00:00 - 12:00:00	Backend Development – Node.js	Branch 17
	13:00:00 - 16:00:00	Backend Development – Node.js	
12/11/2025 (Thursday)	09:00:00 - 12:00:00	Backend Development – Node.js	Branch 17
	13:00:00 - 16:00:00	Backend Development – Node.js	
12/15/2025 (Monday)	09:00:00 - 12:00:00	Backend Development – Node.js	Branch 17
	13:00:00 - 16:00:00	Backend Development – Node.js	
12/16/2025 (Tuesday)	09:00:00 - 10:00:00	Backend Development – Node.js	Branch 17
	13:00:00 - 16:00:00	Enterprise Integration: Industry Simulation	
12/17/2025 (Wednesday)	09:00:00 - 12:00:00	Enterprise Integration: Industry Simulation	Branch 17
	13:00:00 - 16:00:00	Enterprise Integration: Industry Simulation	
12/22/2025 (Monday)	09:00:00 - 12:00:00	Enterprise Integration: Industry Simulation	Branch 17
	13:00:00 - 16:00:00	Enterprise Integration: Industry Simulation	
12/23/2025 (Tuesday)	09:00:00 - 12:00:00	Enterprise Integration: Industry Simulation	Branch 17
	13:00:00 - 16:00:00	Enterprise Integration: Industry Simulation	
12/24/2025 (Wednesday)	09:00:00 - 12:00:00	Enterprise Integration: Industry Simulation	Branch 17
	13:00:00 - 16:00:00	Enterprise Integration: Industry Simulation	

 Overview My Exams Results Exam Marks Finished Courses Upcoming Courses Schedule Feedback

Feedback

Share feedback about courses or instructors.

Type: Course

Select course: — Select —

Feedback:

Tell us what can be improved...

 Submit

Update Career Data

Add your freelance work, grad job, and certificates.

Graduate Job

Company

Job Title

Job Field

Job Type

Salary (EGP)

Proof Link (offer/contract)

 Save

Profile locked due to failed corrective exam. Editing is disabled.

Conclusion

What We Delivered (Technical & Business Impact)

- **End-to-End Solution:** Successfully architected a full-stack data journey, migrating from a raw transactional system (OLTP) to a sophisticated Galaxy Schema Data Warehouse (OLAP).
- **Strategic Value:** Shifted ITI's management approach from reactive to proactive, using 20 Power BI dashboards to optimize curricula based on real-time data.
- **The "Freelance" Factor:** Bridged the gap between academic theory and market reality by integrating freelance revenue data to measure the true ROI of education.

Future Roadmap

-  **Predictive Analytics:** Implementing Machine Learning models to predict student dropout rates and exam failure risks.
-  **Cloud Scalability:** Migrating the infrastructure to Microsoft Azure for global accessibility.
-  **Mobile Integration:** Developing a dedicated mobile app for students and instructors.

Any Questions ?

Thank You