

## Procedure Statements

### 1. How can we quickly add a new student to the system with all their details?

```
Create procedure InsertStudents (@StudentID Varchar(10), @StudentName Varchar(50),  
  
@Gender Varchar (6), @DOB Date,  
  
@DepartmentID Varchar (10), @Email Varchar (100))  
  
As  
  
Begin  
  
Insert into Students (StudentID, Name, Gender, DOB, DepartmentID, Email)  
  
Values(@StudentID, @StudentName, @Gender, @DOB, @DepartmentID, @Email)  
  
End;
```

### 2. How can we enroll a student in a specific course efficiently?

```
Create procedure NewEnrollment (@EnrollmentID Varchar (10), @StudentID Varchar (10),  
@CourseID Varchar (10), @EnrollmentDate Date)  
  
As  
  
Begin  
  
Insert into Enrollments (EnrollmentID, StudentID, CourseID, EnrollmentDate)  
  
Values (@EnrollmentID, @StudentID, @CourseID, @EnrollmentDate)  
  
End;
```

### 3. How can we get a list of all students enrolled in a specific course?

```
Create procedure StudentsInCourse (@CourseCode Varchar(10))  
  
As  
  
Begin  
  
Select Distinct S.StudentID, S.Name, C.CourseName, S.DepartmentID  
  
From Students S
```

```

Join Enrollments E
on S.StudentID = E.StudentID

Join Courses C
on E.CourseID = C.CourseID

Where C.CourseID = @CourseCode

Order by S.StudentID

End;

```

#### 4. Which students are being taught by a particular instructor?

```

Create Procedure Studentstaught (@InstructorName Varchar (50))

```

```

As

```

```

Begin

```

```

Select I.InstructorID, InstructorName,
Count (Distinct S.StudentID) As TotalStudents,
STRING_AGG(S.Name, ',') As StudentsTaught
From Instructors I
Join Courses C
on I.InstructorID = C.InstructorID
Join Enrollments E
on C.CourseID = E.CourseID
Join Students S
on E.StudentID = S.StudentID

Where InstructorName = @InstructorName

Group by I.InstructorID, InstructorName

Order by TotalStudents;

```

```

End;

```

## 5. How can we update a student's contact information automatically?

Create procedure UpdateStudentMail (@StudentID Varchar(10), @Email Varchar (100))

As

Begin

Update Students

Set Email = @Email

Where StudentID = @StudentID

End;

## 6. What courses is a specific student currently enrolled in?

Create procedure StudentCourseEnrollment (@StudentID Varchar (10))

As

Begin

Select S.StudentID, S.Name AS StudentName,

Count(E.CourseID) AS NumberOfCoursesEnrolled,

String\_agg(C.CourseName, ', ') AS CoursesTaken

from Students S

Join Enrollments E

on S.StudentID = E.StudentID

Join Courses C

on E.CourseID = C.CourseID

Where s.StudentID = @StudentID

Group by S.StudentID, S.Name

Order by NumberOfCoursesEnrolled;

End;

## 7. How do we retrieve a summary of enrollment counts per course?

Create Procedure CourseEnrollment (@CourseID Varchar (10))

As

Begin

Select C.CourseID, CourseName , Count(E.courseID) As EnrollmentCount

From Courses C

Join Enrollments E

on C.CourseID = E.CourseID

Where C.CourseID = @CourseID

Group by C.CourseID, CourseName

Order by EnrollmentCount

End;

## Call Statements

1. Exec InsertStudents

@StudentID = 'S3043',

@StudentName = 'Stanley Manor',

@Gender = 'Male',

@DOB = '2004-04-06',

@DepartmentID = 'DPT-POL',

@Email = 'Smanor@stu.edu.com'

2. Exec NewEnrollment

@EnrollmentID = 'E201',

@StudentID = 'S3043',

@CourseID = 'Eco101';

3. Exec StudentsInCourse @CourseCode = 'Soc301'
4. Exec Studentstaught @InstructorName = 'Dr Foye'
5. Exec UpdateStudentMail 'S3042', 'Wlyon@stu.edu.com'
6. Exec StudentCourseEnrollment @StudentID = 'S3029'
7. Exec CourseEnrollment @CourseID = 'Eco201'