

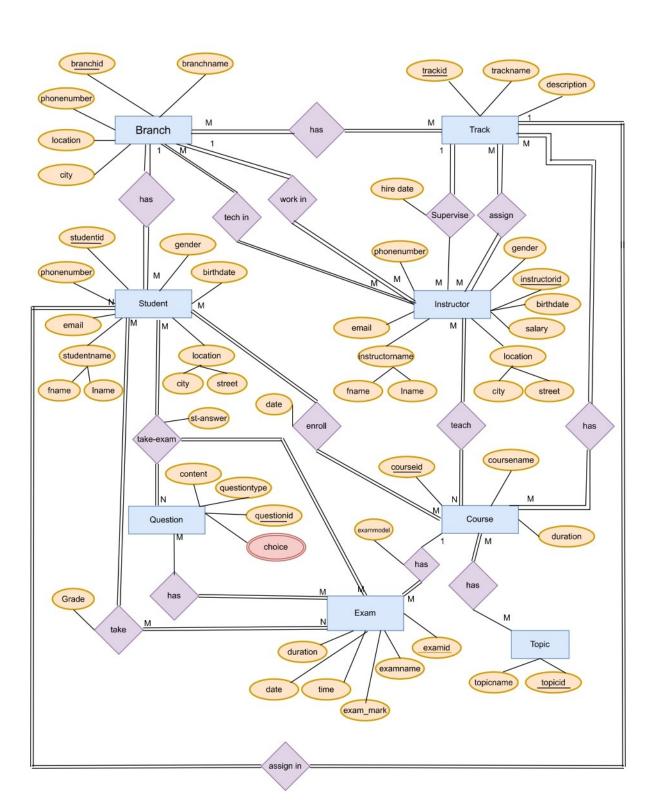
ITI Examination System

Made By: Team Number 5

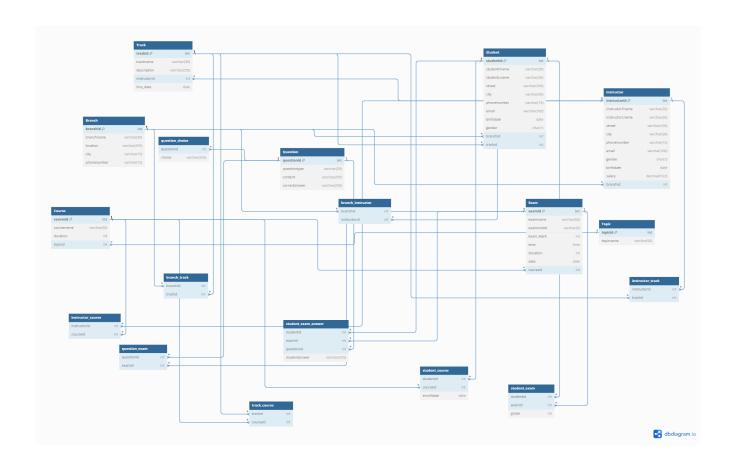
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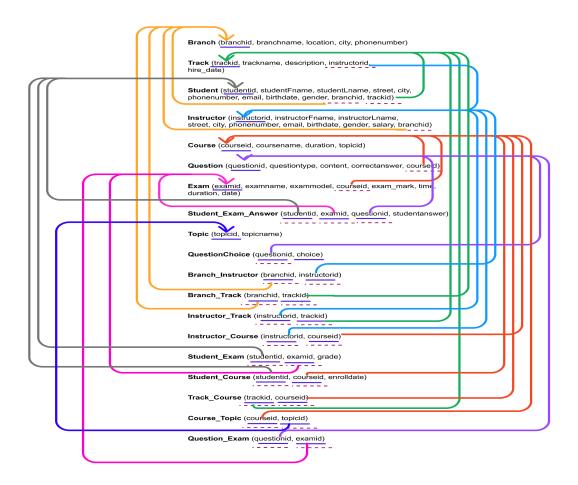
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MAPPING



<u>Tables:</u>

dbo.E	Branch (5 rows)
	Stores information about different branches of the ITI.
dbo.b	ranch_instructor (5 rows)1
	Links instructors to specific ITI branches.
dbo.b	ranch_track (6 rows)1
	Links branches to specific tracks offered at each branch of the ITI.
dbo.C	Course (5 rows)
	Stores details about the courses offered by the ITI.
dbo.C	Course_Topic (13 rows)
	Links courses to specific topics (every course have some topics).
dbo.E	xam (12 rows)3
	Stores information about exams associated with courses.
dbo.I	nstructor (4 rows)
	Stores information about the instructors teaching courses.
dbo.i	nstructor_course (8 rows)4
	Links instructors to the courses they are teaching.
dbo.i	nstructor_track (6 rows)5
	Links instructors to specific tracks they are associated with.
dbo.Ç	Question (60 rows)5
	Stores questions that can be part of exams.
dbo.q	uestion_choice (180 rows) 5
	Stores the choices for each question.
dbo.q	uestion_exam (40 rows)6
	Links questions to specific exams.
dbo.S	Student (6 rows)6
	Stores information about the students.
dbo.s	tudent_course (6 rows)7
	Links students to the courses they are enrolled in.
dbo.s	tudent_exam (2 rows)7
	Stores information about the exams taken by students.
dbo.s	tudent_exam_answer (30 rows)8
	Stores the answers given by students for specific exam questions.
dbo.T	opic (5 rows)8
	Stores information about the topics covered in courses.
dbo.T	'rack (2 rows)9

dbo.track_course (6 rows)	9
Links tracks to specific courses that are part of the track.	
Procedures:	
dbo.CreateExamWithQuestions	10
This stored procedure creates a new exam for a specified course and associates a set number of question with the exam. It takes the details of the exam such as the exam name, course ID, the number of questions, the scheduled exam time, date, and duration, and inserts them into the database and takes (ExamName (VARCHAR CourseId (INT), QuestionCount (INT), ExamTime (TIME), ExamDate (DATE), Duration (INT)).	e
dbo.Delete_Branch_Instructor	.10
Deletes the relationship between a branch and an instructor. It does not remove the instructor or branch only their association and takes(Instructor_ID (INT), Branch_ID (INT)).	:h,
dbo.Delete_Branch_Track	10
Deletes the relationship between a branch and a track, removing the association of that track with the branch and takes (bid (INT), tid (INT)).	
dbo.Delete_Branch_With_ID	10
Deletes a branch and all associated data (like instructors, tracks) based on the provided branchid.	
dbo.Delete_Instructor_With_ID	10
Deletes an instructor and their associated data (courses, tracks) based on the provided instructorid.	
dbo.Delete_Question_By_ID	11
Deletes a specific question from the Question table based on the provided questionid.	
dbo.Delete_Question_Choices_By_ID	11
Deletes the choices associated with a specific question based on questionid.	
dbo.Delete_Question_Exam	11
Deletes the relationship between a question and an exam, removing its association and takes (question (INT), examid (INT)).	id
dbo.Delete_Student_Course	11
Deletes the relationship between a student and a course, effectively unenrolling the student from that course based on studentid.	
dbo.Delete_Student_Exam	.12
Deletes a student's record for a specific exam, likely removing grades and exam data based on student	id.
dbo.Delete_Student_Exam_Answer	12
Deletes a student's answer for a specific exam question, takes (studentid (INT), examid (INT), question (INT)).	nid
dbo.Delete_Student_From_Track	.12
Removes a student from a specific track, potentially affecting their enrollment in courses within that track (studentid (INT), trakid (INT)).	ıck
dbo.Delete_Student_With_ID	12
Deletes a student's record based on studentid, removing their personal information and associations wi courses, exams, etc.	th
dbo.Delete_Topic	12

dbo.Delete_Track
Deletes a track from the Track table, including its associations with courses, instructors, and students based on trackID.
dbo.Delete_Track_Course
Removes the association between a track and a course, effectively removing that course from the track tackes (trackID (INT), courseID (INT)).
dbo.Delete_Track_With_ID13
Deletes a track and all associated data (courses, instructors) based on the trackid.
dbo.ExamCorrection
allows for correcting or updating an exam's details or answers after the exam has been taken takes (StudentID (INT), ExamID (INT)).
dbo.Insert_Branch
Inserts a new branch into the Branch table, takes (BranchID (INT), Branchname (VARCHAR), Location (VARCHAR), City (VARCHAR), Phonenumber (VARCAHR)).
dbo.Insert_branch_track
Adds a new relationship between a branch and a track, takes (branchid (INT), trackid (INT)).
dbo.Insert_Choices
Inserts possible choices for a specific question, takes (id (INT), option1 (VARCHAR), option2 (VARCHAR), option3 (VARCHAR)).
dbo.Insert_Instructor
Adds a new instructor to the Instructor table.
dbo.Insert_New_branch_Instructor
Links a new instructor to a branch, establishing the relationship between them, takes (Instructor_ID (INT), Branch (INT)).
dbo.Insert_Question
Inserts a new question into the Question table, takes (id (INT), questiontype (VARCHAR), content (VARCHAR), correctanswer (VARCHAR)).
dbo.Insert_Question_Exam
Links a question to a specific exam, establishing its relationship, tackes (questionid (INT), examid (INT)).
dbo.Insert_Student
Adds a new student to the Student table.
dbo.Insert_Student_Course
Enrolls a student in a course, adding an entry in the student_course table, takes (studentid (INT), courseid (INT), enrolldate (date)).
dbo.Insert_Student_Exam
Enrolls a student in an exam, creating a record in the student_exam table, takes (studentid (INT), examid (INT), grade (float), timetaken (time(7))).
dbo.Insert_Student_Exam_Answer
Adds a student's answer to a specific exam question, takes (studentid (INT), examid (INT), questionid (INT), statentanswer (NVARCHAR)).
dbo.Insert_Topic

dbo.Insert_Track 1
Adds a new track to the Track table, takes (trackID (INT), trackName(VARCHAR), description (VARCHAR), instructorID (INT), hireDate (DATE)).
dbo.Insert_Track_Course
Links a course to a specific track, adding the relationship in track_course, takes (trackID (INT), courseID (INT)).
dbo.Questions_Of_Exam
Retrieves all questions associated with a specific exam based on ID.
dbo.Select_All_Branches 1
Retrieves all the branches from the Branch table.
dbo.Select_All_Branchs_Instructors
Retrieves all instructors associated with each branch.
dbo.Select_All_Instructors
Retrieves all instructors from the Instructor table.
dbo.Select_All_Question
Retrieves all questions from the Question table.
dbo.Select_All_Students
Retrieves all students from the Student table.
dbo.Select_All_Tracks
Retrieves all tracks from the Track table.
dbo.Select_Branch_Tracks 1
Retrieves all tracks associated with a specific branch.
dbo.Select_Branch_With_ID
Retrieves a branch by its ID (branchid).
dbo.Select_Course_Topices
This stored procedure retrieves the list of topics associated with a specific course, identified by the provided Course_ID.
dbo.Select_Exam_Questions_And_Choices
This stored procedure retrieves all questions and their associated choices for a specified exam, based on the provided Exam_ID.
dbo.Select_Instructor_courses
This stored procedure returns the list of courses taught by a specific instructor, along with the number of students enrolled in each course based on Instructor_ID.
dbo.Select_Instructor_With_ID2
Retrieves an instructor by their ID (instructorid).
dbo.Select_Question_By_Id2
Retrieves a specific question by its ID (questionid).
dbo.Select_Question_Choices
Retrieves all choices for a specific question.

dbo.Select_Specific_Student_In_Track21
Retrieves a specific student within a track based on trackID and studentID.
dbo.Select_Student_ALL_Data
Retrieves all data related to a student, including courses, exams, and answers.
dbo.Select_Student_Answers_on_Spacific_Exam
This stored procedure retrieves the answers provided by a specific student for each question in a particular exam. It is filtered by both the Exam_ID and Student_ID.
dbo.Select_Student_Course
Retrieves courses a student is enrolled in.
dbo.Select_Student_Course_By_ID
Retrieves a student's course enrollment by their ID.
dbo.Select_Student_Data_In_Course
dbo.Select_Student_Exam
Retrieves all exam information for a student.
dbo.Select Student Exam Answer
Retrieves all answers a student has provided for exams.
dbo.Select_Student_Grades23
This stored procedure fetches the grades of a student across all courses they are enrolled in, based on the provided Student_ID.
dbo.Select_Student_Tracks_By_ID
Retrieves all tracks a student is enrolled in based on their studentid.
dbo.Select_Students_By_Exam24
Retrieves all students enrolled in a specific exam.
dbo.Select_Students_In_All_Tracks
dbo.Select_Students_In_Spacific_Track
This stored procedure retrieves all student records for a specified track using the provided Track_ID.
dbo.Select_Topics
Retrieves all topics from the Topic table.
dbo.Select_Topics_By_ID
dbo.Select_Track
Retrieves a specific track by its ID (trackid).
_
Retrieves a specific track by its ID (trackid).
Retrieves a specific track by its ID (trackid). dbo.Select_Track_Courses

dbo.Select_Track_With_ID	25
Retrieves a specific track by its ID (trackid).	
dbo.Select_Tracks	26
Retrieves all tracks from the Track table.	
dbo.Select_Tracks_By_ID	26
Retrieves a specific track by its ID (trackid).	
dbo.StudentAnswer	26
Processes or retrieves the answer provided by a student for a specific question.	
dbo.Update_branch_track	. 27
Updates the relationship between a branch and a track.	
dbo.Update_Branch_With_ID	27
Updates branch details using the branchid.	
dbo.Update_Choices	27
Updates the available choices for a question.	
dbo.Update_Instructor_With_ID	27
Updates instructor details based on instructorid.	
dbo.Update_Question_By_ID	. 28
Updates a specific question by questionid.	
dbo.Update_Question_Exam	28
Updates the relationship between questions and exams.	
dbo.Update_Student_Exam	. 28
Updates student exam data (grades, results).	
dbo.Update_Student_Exam_Answer	28
Updates a student's answer for an exam question.	
dbo.Update_Student_With_ID	29
Updates student details based on studentid.	
dbo.Update_Topic	29
Updates topic details in the Topic table.	
dbo.Update_Track	. 29
Updates track details in the Track table.	
dbo.Update_Track_Course	30
Updates the relationship between tracks and courses.	
dbo.Update_Track_With_ID	. 30
Updates a specific track's details based on trackid.	

Tables:

Table dbo.Branch (4 rows)

Stores information about different branches of the ITI.

	Column	Data Type	Identity	Nullable	Default	
PK	branchid	int				
	Primary key, unique identifier for the branc	h.				
	branchname	varchar(20)		Χ		
	Name of the branch.					
	location	varchar(255)		Χ		
	The physical location of the branch.					
	city	varchar(15)		Χ		
	The city where the branch is located.					
	phonenumber	varchar(15)		Χ		
	The phone number for the branch.					

Indexes:

PK_Branch__751989172E0ABFB3 (Primary Key) (Clustered)

branchid

Referenced by:

dbo.branch_instructor (branchid)

dbo.branch_track (branchid)

dbo.Instructor (branchid)

dbo.Student (branchid)

Table dbo.branch_instructor (0 rows)

Links instructors to specific ITI branches.

	Column	Data Type	Identity	Nullable	Default	
PK, FK	branchid	int				
	Foreign key linking to Branch.					
PK, FK	PK, FK instructorid int					
	Foreign key linking to Instructor.					

Indexes:

PK__branch_i__A51A86F1E7D3307E (Primary Key) (Clustered)

branchid instructorid

References:

dbo.Branch (branchid)

dbo.Instructor (instructorid)

Table dbo.branch_track (0 rows)

Links branches to specific tracks offered at each branch of the ITI.

	Column	Data Type	Identity	Nullable	Default		
PK, FK	branchid	int					
	Foreign key linking to Branch.						
PK, FK	trackid	int					
	Foreign key linking to Track.						

PK__branch_t__C042A6C572D607C5 (Primary Key) (Clustered)

branchid trackid

References:

dbo.Branch (branchid)

dbo.Track (trackid)

Table dbo.Course (5 rows)

Stores details about the courses offered by the ITI.

	Column	Data Type	Identity	Nullable	Default	
PK	courseid	int				
	Primary key, unique identifier for the course.					
	coursename	varchar(30)		Χ		
	Name of the course.					
	duration	int		Χ		
	Duration of the course.					

Indexes:

PK__Course__2AAB4BC9D83960F7 (Primary Key) (Clustered)

courseid

Referenced by:

dbo.Course_Topic (courseid)

dbo.Exam (courseid)

 ${\bf dbo.instructor_course}\ ({\it courseid})$

dbo.Question (courseid)

dbo.student_course (courseid)

dbo.track_course (courseid)

<u>Table dbo.Course_Topic</u> (13 rows)

Links courses to specific topics (every course have some topics).

	Column	Data Type	Identity	Nullable	Default		
PK, FK	topicid	int					
	Foreign key linking to Topic.						
PK, FK	PK, FK courseid int						
	Foreign key linking to courseid.						

PK__Course_T__FE95C1E5A69FAE32 (Primary Key) (Clustered)

topicid courseid

References:

dbo.Course (courseid)
dbo.Topic (topicid)

Table dbo.Exam (12 rows)

Stores information about exams associated with courses.

	Column	Data Type	Identity	Nullable	Default	
PK	examid	int				
	Primary key, unique identifier for the exam.					
	examname	varchar(50)		Χ		
	Name of the exam.					
	exammodel	varchar(5)		Χ		
	The model or type of the exam.					
FK	courseid	int		X		
	Foreign key linking to Course.					
	exam_mark	int		X		
	Maximum marks for the exam.					
	time	time		X		
	The time of the exam.					
	duration	int		X		
	Duration of the exam.					
	date	date		X		
	Date of the exam.					

Indexes:

PK_Exam__A56C2E671F3DB5E6 (Primary Key) (Clustered)

examid

References:

dbo.Course (courseid)

Referenced by:

dbo.question_exam (examid)

dbo.student_exam (examid)

 ${\bf dbo.student_exam_answer}~(\textit{examid})$

Table dbo.Instructor (4 rows)

Stores information about the instructors teaching courses.

	Column	Data Type	Identity	Nullable	Default		
PK	instructorid	int					
	Primary key, unique identifier for the instructor.						
	instructorFname	varchar(20)		X			
	First name of the instructor.						

	instructorLname	varchar(20)	Х				
	IIISTIUCTOTETIAITIE	varchar(20)	^				
	Last name of the instructor.						
	street	varchar(100)	X				
	Street address of the instructor.						
	city	varchar(30)	X				
	City where the instructor resides.						
	phonenumber	varchar(15)	X				
	Contact phone number.						
	email	varchar(100)	X				
	Email address of the instructor.						
	gender	char(1)	X				
	Gender of the instructor.						
	birthdate	date	X				
	Date of birth of the instructor.						
	salary	decimal(10,2)	X				
	Salary of the instructor.						
FK	branchid	int	X				
	Foreign key linking to Branch.						

PK__Instruct__0030FE6CF07911E9 (Primary Key) (Clustered)

instructorid

References:

dbo.Branch (branchid)

Referenced by:

dbo.branch_instructor (instructorid)

dbo.instructor_course (instructorid)

dbo.instructor_track (instructorid)

dbo.Track (instructorid)

Table dbo.instructor_course (8 rows)

Links instructors to the courses they are teaching.

	Column	Data Type	Identity	Nullable	Default	
PK, FK	instructorid	int				
	Foreign key linking to Instructor.					
PK, FK	courseid	int				
	Foreign key linking to Course.					

Indexes:

PK__instruct__829A4AD00B53ABBA (Primary Key) (Clustered)

instructorid courseid

References:

dbo.Course (courseid)

dbo.Instructor (instructorid)

Table dbo.instructor_track (0 rows)

Links instructors to specific tracks they are associated with.

	Column	Data Type	Identity	Nullable	Default		
PK, FK	instructorid	int					
	Foreign key linking to Instructor.						
PK, FK	trackid	int					
	Foreign key linking to Track.						

Indexes:

PK__instruct__B56BD1BE8CD4BC3F (Primary Key) (Clustered)

instructorid trackid

References:

dbo.Instructor (instructorid)
dbo.Track (trackid)

Table dbo.Question (60 rows)

Stores questions that can be part of exams.

	Column	Data Type	Identity	Nullable	Default	
PK	questionid	int				
	Primary key, unique identifier for the quest	ion.				
	questiontype	varchar(20)		X		
	Type of question (multiple choice, true/false)					
	content	varchar(255)		Χ		
	Content of the question.					
	correctanswer	varchar(255)		Χ		
	Correct answer for the question.					
FK	courseid	int		X		
	Foreign key linking to Course.					

Indexes:

PK_Question__62C2216ADEEF7B28 (Primary Key) (Clustered)

questionid

References:

dbo.Course (courseid)

Referenced by:

dbo.question_choice (questionid)

dbo.question_exam (questionid)

dbo.student_exam_answer (questionid)

Table dbo.question_choice (180 rows)

Stores the choices for each question in an exam.

Column	Data Type	Identity	Nullable	Default	ı
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PK, FK	questionid	int					
	Foreign key linking to Question.						
PK	choice	varchar(255)					
A possible answer choice.							

PK__question__75B1283AD837C7E8 (Primary Key) (Clustered)

questionid choice

References:

dbo.Question (questionid)

Table dbo.question_exam (40 rows)

Links questions to specific exams.

	Column	Data Type	Identity	Nullable	Default	
PK, FK	questionid	int				
	Foreign key linking to Question.					
PK, FK	examid	int				
	Foreign key linking to Exam.					

Indexes:

PK__question__0894E38CC0788603 (Primary Key) (Clustered)

questionid examid

References:

dbo.Exam (examid)

dbo.Question (questionid)

Table dbo.Student (6 rows)

Stores information about the students enrolled in courses.

	Column	Data Type	Identity	Nullable	Default	
PK	studentid	int				
	Primary key, unique identifier for the stude	nt.				
	studentFname	varchar(20)		X		
	First name of the student.					
	studentLname	varchar(20)		Χ		
	Last name of the student.					
	street	varchar(100)		X		
	Street address of the student.					
	city	varchar(30)		X		
	City where the student resides.					
	phonenumber	varchar(15)		X		
	Contact phone number of the student.					
	email	varchar(100)		X		
	Email address of the student.					
	birthdate	date		X		
	Birthdate of the student.					

	gender	char(1)	X			
	Gender of the student.					
FK	branchid	int	X			
	Foreign key linking to Branch.					
FK	Trackid	int	X			
	Foreign key linking to Track.					

PK__Student__4D16D264CD76C654 (Primary Key) (Clustered)

studentid

References:

dbo.Branch (branchid)

dbo.Track (Trackid -> trackid)

Referenced by:

dbo.student_course (studentid)

dbo.student_exam (studentid)

dbo.student_exam_answer (studentid)

Table dbo.student_course (6 rows)

Links students to the courses they are enrolled in.

	Column	Data Type	Identity	Nullable	Default		
PK, FK	studentid	int					
	Foreign key linking to Student.						
PK, FK	courseid	int					
	Foreign key linking to Course.						
	enrolldate	date		Χ			
	Date when the student enrolled.						

Indexes:

PK__student___CFBC66D8AEF4D941 (Primary Key) (Clustered)

studentid courseid

References:

dbo.Course (courseid)

dbo.Student (studentid)

<u>Table dbo.student_exam</u> (2 rows)

Stores information about the exams taken by students.

	Column	Data Type	Identity	Nullable	Default	
PK, FK	studentid	int				
	Foreign key linking to Student.					
PK, FK	examid	int				
	Foreign key linking to Exam.					
	grade	int		X		

PK__student___274010823F290181 (Primary Key) (Clustered)

studentid examid

References:

dbo.Exam (examid)

dbo.Student (studentid)

<u>Table dbo.student_exam_answer</u> (30 rows)

Stores the answers given by students for specific exam questions.

	Column	Data Type	Identity	Nullable	Default		
PK, FK	studentid	int					
	Foreign key linking to Student.						
PK, FK	examid	int					
	Foreign key linking to Exam.						
PK, FK	questionid	int					
	Foreign key linking to Question.						
	studentanswer	varchar(255)		Х			
	The answer provided by the student.						

Indexes:

PK__student___4C22D2A381498435 (Primary Key) (Clustered)

studentid examid questionid

References:

dbo.Exam (examid)

dbo.Question (questionid)

dbo.Student (studentid)

Table dbo.Topic (5 rows)

Stores information about the topics covered in courses.

	Column	Data Type	Identity	Nullable	Default
PK	topicid	int			
	Primary key, unique identifier for the topic.				
	topicname	varchar(50)		X	
	Name of the topic.				

Indexes:

PK__Topic__7C3F7559B36AFDF5 (Primary Key) (Clustered)

topicid

Referenced by:

Table dbo.Track (2 rows)

Stores information about the various tracks offered by the ITI.

	Column	Data Type	Identity	Nullable	Default		
PK	trackid	int					
	Primary key, unique identifier for the track.						
	trackname	varchar(30)		Χ			
	Name of the track.						
	description	varchar(255)		Χ			
	A brief description of the track.						
FK	instructorid	int		Χ			
	Foreign key linking to Instructor.						
	hire_date	date		Χ			
	The date the instructor was hired for the track.						

Indexes:

PK__Track__55B2FD2AEE71424E (Primary Key) (Clustered)

trackid

References:

dbo.Instructor (instructorid)

Referenced by:

dbo.branch_track (trackid)

dbo.instructor_track (trackid)

dbo.Student (Trackid -> trackid)

dbo.track_course (trackid)

Table dbo.track_course (0 rows)

Links tracks to specific courses that are part of the track.

	Column	Data Type	Identity	Nullable	Default	
PK, FK	trackid	int				
	Foreign key linking to Track.					
PK, FK	courseid	int				
	Foreign key linking to Course.					

Indexes:

PK__track_co__D71849969E2860B6 (Primary Key) (Clustered)

trackid courseid

References:

dbo.Course (courseid)

dbo.Track (trackid)

Procedures:

Procedure dbo.CreateExamWithQuestions

This stored procedure creates a new exam for a specified course and associates a set number of questions with the exam. It takes the details of the exam such as the exam name, course ID, the number of questions, the scheduled exam time, date, and duration, and inserts them into the database and takes (ExamName (VARCHAR), CourseId (INT), QuestionCount (INT), ExamTime (TIME), ExamDate (DATE), Duration (INT)).

Parameter	Data Type	Default	Is Output
@ExamName	nvarchar(100)		
@CourseId	int		
@QuestionCount	int		
@ExamTime	time		
@ExamDate	date		
@Duration	int		

Procedure dbo.Delete_Branch_Instructor

Deletes the relationship between a branch and an instructor. It does not remove the instructor or branch, only their association and takes(Instructor_ID (INT), Branch_ID (INT)).

Parameter	Data Type	Default	Is Output
@Instructor_ID	int		
@Branch_ID	int		

Result:

	Column	Data Type	Nullable
(1)	lo column name)	varchar(32)	

Procedure dbo.Delete_Branch_Track

Deletes the relationship between a branch and a track, removing the association of that track with the branch and takes (bid (INT), tid (INT)).

Parameter	Data Type	Default	Is Output
@bid	int		
@tid	int		

Procedure dbo.Delete_Branch_With_ID

Deletes a branch and all associated data (like instructors, tracks) based on the provided branchid.

Parameter	Data Type	Default	Is Output
@Branch_ID	int		

Result:

Column	Data Type	Nullable
UserMessage	varchar(21)	

Procedure dbo.Delete_Instructor_With_ID

Deletes an instructor and their associated data (courses, tracks) based on the provided instructorid.

Parameter	Data Type	Default	Is Output
@Instructor_ID	int		

Result:

Column	Data Type	Nullable
UserMessage	varchar(21)	

Procedure dbo.Delete_Question_By_ID

Deletes a specific question from the Question table based on the provided questionid.

Parameter	Data Type	Default	Is Output
@id	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(37)	

Procedure dbo.Delete_Question_Choices_By_ID

Deletes the choices associated with a specific question based on questionid.

Parameter	Data Type	Default	Is Output
@id	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(37)	

Procedure dbo.Delete Question Exam

Deletes the relationship between a question and an exam, removing its association and takes (questionid (INT), examid (INT)).

Parameter	Data Type	Default	Is Output
@questionid	int		
@examid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(29)	

Procedure dbo.Delete_Student_Course

Deletes the relationship between a student and a course, effectively unenrolling the student from that course based on studentid.

Parameter	Data Type	Default	Is Output
@p studentid	int		

Column	Data Type	Nullable
(No column name)	varchar(60)	

Procedure dbo.Delete_Student_Exam

Deletes a student's record for a specific exam, likely removing grades and exam data based on studentid.

Parameter	Data Type	Default	Is Output
@p_studentid	int		

Procedure dbo.Delete_Student_Exam_Answer

Deletes a student's answer for a specific exam question, takes (studentid (INT), examid (INT), questionid (INT)).

Parameter	Data Type	Default	Is Output
@p_studentid	int		
@p_examid	int		
@p_questionid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(29)	

Procedure dbo.Delete_Student_From_Track

Removes a student from a specific track, potentially affecting their enrollment in courses within that track (studentid (INT), trakid (INT)).

Parameter	Data Type	Default	Is Output
@p_studentid	int		
@p_trackid	int		

Procedure dbo.Delete_Student_With_ID

Deletes a student's record based on studentid, removing their personal information and associations with courses, exams, etc.

Parameter	Data Type	Default	Is Output
@id	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(37)	

Procedure dbo.Delete_Topic

Deletes a topic, potentially removing associations with courses and exams based on topicID.

Ì	@tid	int	
	wild	1110	

Column	Data Type	Nullable
(No column name)	varchar(16)	

Procedure dbo.Delete_Track

Deletes a track from the Track table, including its associations with courses, instructors, and students based on trackID.

Parameter	Data Type	Default	Is Output
@tid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(16)	

Procedure dbo.Delete_Track_Course

Removes the association between a track and a course, effectively removing that course from the track tackes (trackID (INT), courseID (INT)).

Parameter	Data Type	Default	Is Output
@tid	int		
@cid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(32)	

Procedure dbo.Delete Track With ID

Deletes a track and all associated data (courses, instructors) based on the trackid.

Parameter	Data Type	Default	Is Output
@Track_ID	int		

Procedure dbo.ExamCorrection

allows for correcting or updating an exam's details or answers after the exam has been taken takes (StudentID (INT), ExamID (INT)).

Parameter	Data Type	Default	Is Output
@P_StudentID	int		
@P_ExamID	int		

Procedure dbo.Insert_Branch

Inserts a new branch into the Branch table, takes (BranchID (INT), Branchname (VARCHAR), Location (VARCHAR), City (VARCHAR), Phonenumber (VARCAHR)).

Parameter	Data Type	Default	Is Output
@Branch_ID	int		
@Branchname	varchar(20)		
@Location	varchar(255)		
@City	varchar(15)		
@Phonenumber	varchar(15)		

Column	Data Type	Nullable
ErrorNumber	int	Х
ErrorMessage	nvarchar(4000)	X

Procedure dbo.Insert_branch_track

Adds a new relationship between a branch and a track, takes (branchid (INT), trackid (INT)).

Parameter	Data Type	Default	Is Output
@bid	int		
@tid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(17)	

Procedure dbo.Insert_Choices

Inserts possible choices for a specific question, takes (id (INT), option1 (VARCHAR), option2 (VARCHAR), option3 (VARCHAR)).

Parameter	Data Type	Default	Is Output
@id	int		
@option1	varchar(255)		
@option2	varchar(255)		
@option3	varchar(255)		

Result:

Column	Data Type	Nullable
(No column name)	varchar(37)	

Procedure dbo.Insert_Instructor

Adds a new instructor to the Instructor table.

Parameter	Data Type	Default	Is Output
@Instructor_ID	int		
@InstructorFname	varchar(20)		
@InstructorLname	varchar(20)		
@Street	varchar(100)		
@City	varchar(30)		
@PhoneNumber	varchar(15)		
@Email	varchar(100)		
@Gender	char(1)		

@BirthDate	date	
@Salary	decimal(10,2)	
@BranchID	int	

Column	Data Type	Nullable
UserMessage	varchar(47)	

Procedure dbo.Insert_New_branch_Instructor

Links a new instructor to a branch, establishing the relationship between them, takes (Instructor_ID (INT), Branch (INT)).

Parameter	Data Type	Default	Is Output
@Instructor_ID	int		
@Branch_ID	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(17)	

Procedure dbo.Insert_Question

Inserts a new question into the Question table, takes (id (INT), questiontype (VARCHAR), content (VARCHAR), correctanswer (VARCHAR)).

Parameter	Data Type	Default	Is Output
@id	int		
@questiontype	varchar(20)		
@content	varchar(255)		
@correctanswer	varchar(255)		

Result:

Column	Data Type	Nullable
(No column name)	varchar(54)	

Procedure dbo.Insert_Question_Exam

Links a question to a specific exam, establishing its relationship, tackes (questionid (INT), examid (INT)).

Parameter	Data Type	Default	Is Output
@questionid	int		
@examid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(31)	

Procedure dbo.Insert_Student

Adds a new student to the Student table.

Parameter	Data Type	Default	Is Output
@id	int		
@stuFname	varchar(20)		
@stuLname	varchar(20)		
@street	varchar(100)		
@city	varchar(30)		
@phone	varchar(15)		
@email	varchar(100)		
@birthdate	date		
@gender	char(1)		
@branchid	int		

Column	Data Type	Nullable
(No column name)	varchar(37)	

Procedure dbo.Insert_Student_Course

Enrolls a student in a course, adding an entry in the student_course table, takes (studentid (INT), courseid (INT), enrolldate (date)).

Parameter	Data Type	Default	Is Output
@p_studentid	int		
@p_courseid	int		
@p_enrolldate	date		

Result:

Column	Data Type	Nullable
(No column name)	varchar(29)	

Procedure dbo.Insert_Student_Exam

Enrolls a student in an exam, creating a record in the student_exam table, takes (studentid (INT), examid (INT), grade (float), timetaken (time(7))).

Parameter	Data Type	Default	Is Output
@p_studentid	int		
@p_examid	int		
@p_grade	float		
@p_timetaken	time		

Procedure dbo.Insert_Student_Exam_Answer

Adds a student's answer to a specific exam question, takes (studentid (INT), examid (INT), questionid (INT), statentanswer (NVARCHAR)).

Parameter	Data Tyra	Dofoult	To Output
Parameter	Data Type	Delauit	Is Output
@p_studentid	int		
@p_examid	int		
@p_questionid	int		
@p studentanswer	nvarchar(max)		

Column	Data Type	Nullable
(No column name)	varchar(30)	

Procedure dbo.Insert_Topic

Inserts a new topic into the Topic table, takes (topicID (INT), topicName (VARCHAR)).

Parameter	Data Type	Default	Is Output
@tid	int		
@tn	varchar(50)		

Result:

Column	Data Type	Nullable
(No column name)	varchar(14)	

Procedure dbo.Insert Track

Adds a new track to the Track table, takes (trackID (INT), trackName(VARCHAR), description (VARCHAR), instructorID (INT), hireDate (DATE)).

Parameter	Data Type	Default	Is Output
@Track_ID	int		
@Trackname	varchar(20)		
@Description	varchar(255)		
@Instructorid	int		
@Hire_date	date		

Result:

Column	Data Type	Nullable
UserMessage	varchar(33)	

Procedure dbo.Insert_Track_Course

Links a course to a specific track, adding the relationship in track_course, takes (trackID (INT), courseID (INT)).

Parameter	Data Type	Default	Is Output
@tid	int		
@cid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(16)	

Procedure dbo.Questions_Of_Exam

Retrieves all questions associated with a specific exam based on ID.

Parameter	Data Type	Default	Is Output
@id	int		

Column	Data Type	Nullable
(No column name)	varchar(37)	X

Procedure dbo.Select_All_Branches

Retrieves all the branches from the Branch table.

No parameters.

Result:

Column	Data Type	Nullable
branchid	int	
branchname	varchar(20)	Х
location	varchar(255)	X
city	varchar(15)	Х
phonenumber	varchar(15)	Х

Procedure dbo.Select_All_Branchs_Instructors

Retrieves all instructors associated with each branch.

No parameters.

Result:

Column	Data Type	Nullable
branchid	int	
instructorid	int	

Procedure dbo.Select_All_Instructors

Retrieves all instructors from the Instructor table.

No parameters.

Result:

Column	Data Type	Nullable
instructorid	int	
instructorFname	varchar(20)	X
instructorLname	varchar(20)	Х
street	varchar(100)	X
city	varchar(30)	Х
phonenumber	varchar(15)	Х
email	varchar(100)	X
gender	char(1)	Х
birthdate	date	Х
salary	decimal(10,2)	Х
branchid	int	Х

Procedure dbo.Select_All_Question

Retrieves all questions from the Question table.

No parameters.

Result:

Column	Data Type	Nullable
questionid	int	
questiontype	varchar(20)	X
content	varchar(255)	Х
correctanswer	varchar(255)	Х
courseid	int	Х

Procedure dbo.Select_All_Students

Retrieves all students from the Student table.

No parameters.

Result:

Column	Data Type	Nullable
studentid	int	
studentFname	varchar(20)	X
studentLname	varchar(20)	X
street	varchar(100)	X
city	varchar(30)	X
phonenumber	varchar(15)	X
email	varchar(100)	X
birthdate	date	X
gender	char(1)	X
branchid	int	X
Trackid	int	X

Procedure dbo.Select_All_Tracks

Retrieves all tracks from the Track table.

No parameters.

Result:

Column	Data Type	Nullable
trackid	int	
trackname	varchar(30)	X
description	varchar(255)	Х
instructorid	int	X
hire_date	date	X

Procedure dbo.Select_Branch_Tracks

Retrieves all tracks associated with a specific branch.

No parameters.

Column	Data Type	Nullable
branchid	int	
trackid	int	

Procedure dbo.Select_Branch_With_ID

Retrieves a branch by its ID (branchid).

Parameter	Data Type	Default	Is Output
@Branch_ID	int		

Result:

Column	Data Type	Nullable
branchid	int	
branchname	varchar(20)	X
location	varchar(255)	Х
city	varchar(15)	X
phonenumber	varchar(15)	Х

Procedure dbo.Select_Course_Topices

This stored procedure retrieves the list of topics associated with a specific course, identified by the provided Course_ID.

Parameter	Data Type	Default	Is Output
@Course_ID	int		

Result:

	Column		Nullable
top	icname	varchar(50)	X

Procedure dbo.Select_Exam_Questions_And_Choices

This stored procedure retrieves all questions and their associated choices for a specified exam, based on the provided Exam_ID.

Parameter	Data Type	Default	Is Output
@Exam_ID	int		

Result:

Column	Data Type	Nullable
content	varchar(255)	X
choice	varchar(255)	

Procedure dbo.Select_Instructor_courses

This stored procedure returns the list of courses taught by a specific instructor, along with the number of students enrolled in each course based on Instructor_ID.

Parameter	Data Type	Default	Is Output
@Instructor_ID	int		

Column	Data Type	Nullable
coursename	varchar(30)	Х
Number of Students	int	X

Procedure dbo.Select_Instructor_With_ID

Retrieves an instructor by their ID (instructorid).

Parameter	Data Type	Default	Is Output
@Instructor_ID	int		

Result:

Column	Data Type	Nullable
instructorid	int	
instructorFname	varchar(20)	X
instructorLname	varchar(20)	X
street	varchar(100)	X
city	varchar(30)	X
phonenumber	varchar(15)	X
email	varchar(100)	X
gender	char(1)	X
birthdate	date	Х
salary	decimal(10,2)	Х
branchid	int	X

Procedure dbo.Select_Question_By_Id

Retrieves a specific question by its ID (questionid).

Parameter	Data Type	Default	Is Output
@id	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(41)	Х

Procedure dbo.Select_Question_Choices

Retrieves all choices for a specific question.

No parameters.

Result:

Column	Data Type	Nullable
content	varchar(255)	X
choice	varchar(255)	

Procedure dbo.Select_Specific_Student_In_Track

Retrieves a specific student within a track based on trackID and studentID.

Parameter	Data Type	Default	Is Output
@p_trackid	int		
@p_studentid	int		

Procedure dbo.Select_Student_ALL_Data

Retrieves all data related to a student, including courses, exams, and answers.

Parameter	Data Type	Default	Is Output
@p_studentid	int		

<u>Procedure dbo.Select_Student_Answers_on_Spacific_Exam</u>

This stored procedure retrieves the answers provided by a specific student for each question in a particular exam. It is filtered by both the Exam_ID and Student_ID.

Parameter	Data Type	Default	Is Output
@Exam_ID	int		
@Student_ID	int		

Result:

Column	Data Type	Nullable
Question	varchar(255)	Χ
studentanswer	varchar(255)	Χ

Procedure dbo.Select_Student_Course

Retrieves courses a student is enrolled in.

	Parameter	Data Type	Default	Is Output
(@p_studentid	int		

Result:

Column	Data Type	Nullable
studentid	int	
courseid	int	
enrolldate	date	Х

Procedure dbo.Select_Student_Course_By_ID

Retrieves a student's course enrollment by their ID.

Parameter	Data Type	Default	Is Output
@p_studentid	int		

Procedure dbo.Select_Student_Data_In_Course

Retrieves all data related to a student in a specific course.

Parameter	Data Type	Default	Is Output
@p_studentid	int		
@p_courseid	int		

Procedure dbo.Select_Student_Exam

Retrieves all exam information for a student.

Parameter	Data Type	Default	Is Output
@p_studentid	int		
@p_examid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(42)	

Procedure dbo.Select_Student_Exam_Answer

Retrieves all answers a student has provided for exams.

Parameter	Data Type	Default	Is Output
@p_studentid	int	NULL	
@p_examid	int	NULL	
@p_questionid	int	NULL	

Result:

Column	Data Type	Nullable
studentid	int	
StudentName	varchar(41)	X
examid	int	
examname	varchar(50)	X
questionid	int	
QuestionContent	varchar(255)	Х
studentanswer	varchar(255)	X
correctanswer	varchar(255)	Х

Procedure dbo.Select_Student_Grades

This stored procedure fetches the grades of a student across all courses they are enrolled in, based on the provided Student_ID.

Parameter	Data Type	Default	Is Output
@Student_ID	int		

Result:

Column	Data Type	Nullable
coursename	varchar(30)	X
grade	int	X

Procedure dbo.Select_Student_Tracks_By_ID

Retrieves all tracks a student is enrolled in based on their studentid.

Parameter	Data Type	Default	Is Output
@sid	int		
@tid	int		

Procedure dbo.Select_Students_By_Exam

Retrieves all students enrolled in a specific exam.

Parameter	Data Type	Default	Is Output
@p_examid	int		

<u>Procedure dbo.Select_Students_In_All_Tracks</u>

Retrieves all students enrolled in any track.

No parameters.

<u>Procedure dbo.Select_Students_In_Spacific_Track</u>

This stored procedure retrieves all student records for a specified track using the provided Track_ID.

Parameter	Data Type	Default	Is Output
@Track_ID	int		

Result:

Column	Data Type	Nullable
studentid	int	
studentFname	varchar(20)	X
studentLname	varchar(20)	X
street	varchar(100)	X
city	varchar(30)	X
phonenumber	varchar(15)	X
email	varchar(100)	X
birthdate	date	X
gender	char(1)	X
branchid	int	X
Trackid	int	X

Procedure dbo.Select_Topics

Retrieves all topics from the Topic table.

No parameters.

Result:

Column	Data Type	Nullable
topicid	int	
topicname	varchar(50)	X

Procedure dbo.Select_Topics_By_ID

Retrieves a specific topic by its ID (topicid).

Parameter	Data Type	Default	Is Output
@tid	int		

Result:

Column	Data Type	Nullable	
(No column name)	varchar(16)		

Procedure dbo.Select_Track

Retrieves a specific track by its ID (trackid).

Parameter	Data Type	Default	Is Output
@tid	int		
@tn	varchar(30)		
@d	varchar(255)		
@ini	int		
@hd	date		

Result:

Column	Data Type	Nullable
(No column name)	varchar(14)	

Procedure dbo.Select_Track_Courses

Retrieves all courses associated with a specific track.

No parameters.

Result:

Column	Data Type	Nullable
trackid	int	
courseid	int	

Procedure dbo.Select_Track_Courses_By_ID

Retrieves all courses linked to a specific track ID.

Parameter	Data Type	Default	Is Output
@tid	int		
@cid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(16)	

Procedure dbo.Select_Track_With_ID

Retrieves a specific track by its ID (trackid).

Parameter	Data Type	Default	Is Output
@Track_ID	int		

Result:

Column	Data Type	Nullable
trackid	int	
trackname	varchar(30)	Х
description	varchar(255)	X
instructorid	int	X
hire_date	date	Х

Procedure dbo.Select_Tracks

Retrieves all tracks from the Track table.

No parameters.

Result:

Column	Data Type	Nullable
trackid	int	
trackname	varchar(30)	X
description	varchar(255)	X
instructorid	int	X
hire_date	date	X

Procedure dbo.Select_Tracks_By_ID

Retrieves a specific track by its ID (trackid).

Parameter	Data Type	Default	Is Output
@tid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(16)	

Procedure dbo.StudentAnswer

Processes or retrieves the answer provided by a student for a specific question.

Parameter	Data Type	Default	Is Output
@P_StudentID	int		
@P_ExamID	int		

Result:

Column	Data Type	Nullable
studentanswer	varchar(255)	X

Procedure dbo.Update_branch_track

Updates the relationship between a branch and a track.

Parameter	Data Type	Default	Is Output
@bid	int		
@tid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(32)	

Procedure dbo.Update_Branch_With_ID

Updates branch details using the branchid.

Parameter	Data Type	Default	Is Output
@Branch_ID	int		
@Branchname	varchar(20)		
@Location	varchar(255)		
@City	varchar(15)		
@Phonenumber	varchar(15)		

Result:

Column	Data Type	Nullable
UserMessage	varchar(21)	

Procedure dbo.Update_Choices

Updates the available choices for a question.

Parameter	Data Type	Default	Is Output
@id	int		
@newOption1	varchar(255)		
@newOption2	varchar(255)		
@newOption3	varchar(255)		

Result:

Column	Data Type	Nullable
(No column name)	varchar(37)	

Procedure dbo.Update_Instructor_With_ID

Updates instructor details based on instructorid.

Parameter	Data Type	Default	Is Output
@Instructor_ID	int		
@InstructorFname	varchar(20)		
@InstructorLname	varchar(20)		
@Street	varchar(100)		
@City	varchar(30)		
@PhoneNumber	varchar(15)		
@Email	varchar(100)		

@Gender	char(1)	
@BirthDate	date	
@Salary	decimal(10,2)	
@BranchID	int	

Column	Data Type	Nullable
ErrorNumber	int	X
ErrorMessage	nvarchar(4000)	Х

Procedure dbo.Update_Question_By_ID

Updates a specific question by questionid.

Parameter	Data Type	Default	Is Output
@id	int		
@questiontype	varchar(20)		
@content	varchar(255)		
@correctanswer	varchar(255)		

Result:

Column	Data Type	Nullable
(No column name)	varchar(49)	

Procedure dbo.Update_Question_Exam

Updates the relationship between questions and exams.

Parameter	Data Type	Default	Is Output
@old_questionid	int		
@old_examid	int		
@new_questionid	int		
@new_examid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(39)	

Procedure dbo.Update_Student_Exam

Updates student exam data (grades, results).

Parameter	Data Type	Default	Is Output
@p_studentid	int		
@p_examid	int		
@p_grade	float		
@p_timetaken	time		
@duration	int		

Procedure dbo.Update_Student_Exam_Answer

Updates a student's answer for an exam question.

Parameter	Data Type	Default	Is Output
@p_studentid	int		
@p_examid	int		
@p_questionid	int		
@p_studentanswer	nvarchar(max)		

Result:

Column	Data Type	Nullable
(No column name)	varchar(29)	

Procedure dbo.Update_Student_With_ID

Updates student details based on studentid.

Parameter	Data Type	Default	Is Output
@id	int		
@stuFname	varchar(20)		
@stuLname	varchar(20)		
@street	varchar(100)		
@city	varchar(30)		
@phone	varchar(15)		
@email	varchar(100)		
@birthdate	date		
@gender	char(1)		
@branchid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(37)	

Procedure dbo.Update_Topic

Updates topic details in the Topic table.

Parameter	Data Type	Default	Is Output
@tid	int		
@tn	varchar(50)		

Result:

	Column	Data Type	Nullable
((No column name)	varchar(16)	

Procedure dbo.Update_Track

Updates track details in the Track table.

Parameter	Data Type	Default	Is Output
@tid	int		
@tn	varchar(30)		
@d	varchar(255)		

@ini	int	
@hd	date	

Column	Data Type	Nullable
(No column name)	varchar(16)	

Procedure dbo.Update_Track_Course

Updates the relationship between tracks and courses.

Parameter	Data Type	Default	Is Output
@tid	int		
@cid	int		

Result:

Column	Data Type	Nullable
(No column name)	varchar(32)	

Procedure dbo.Update_Track_With_ID

Updates a specific track's details based on trackid.

Parameter	Data Type	Default	Is Output
@Track_ID	int		
@Trackname	varchar(20)		
@Description	varchar(255)		
@Hire_date	date		