数据库设计文档

# **一．版本信息介绍**：

/\*

Navicat SQL Server Data Transfer

Source Server : ihueiJSqlServer

Source Server Version : 105000

Source Host : IHUEIJ-PC\SQLEXPRESS:1433

Source Database : db\_SGMS

Source Schema : dbo

Target Server Type : SQL Server

Target Server Version : 105000

File Encoding : 65001

Date: 2015-01-09 14:54:49

\*/

# **二.数据库表的设计：**

## 学院表：

-- ----------------------------

-- Table structure for t\_academy

-- ----------------------------

DROP TABLE [dbo].[t\_academy]

GO

CREATE TABLE [dbo].[t\_academy] (

[id] int NOT NULL IDENTITY(1,1) ,

[academyName] varchar(50) NULL

)

GO

DBCC CHECKIDENT(N'[dbo].[t\_academy]', RESEED, 9)

GO

## 管理员表：

-- ----------------------------

-- Table structure for t\_admin

-- ----------------------------

DROP TABLE [dbo].[t\_admin]

GO

CREATE TABLE [dbo].[t\_admin] (

[id] int NOT NULL IDENTITY(1,1) ,

[userName] varchar(50) NOT NULL ,

[password] varchar(50) NOT NULL ,

[headImage] varchar(50) NULL

)

GO

## 班级表：

-- ----------------------------

-- Table structure for t\_class

-- ----------------------------

DROP TABLE [dbo].[t\_class]

GO

CREATE TABLE [dbo].[t\_class] (

[majorId] int NULL ,

[className] varchar(50) NULL ,

[id] int NOT NULL IDENTITY(1,1)

)

GO

DBCC CHECKIDENT(N'[dbo].[t\_class]', RESEED, 23)

GO

## 课程表：

-- ----------------------------

-- Table structure for t\_course

-- ----------------------------

DROP TABLE [dbo].[t\_course]

GO

CREATE TABLE [dbo].[t\_course] (

[academyId] int NULL ,

[courseName] varchar(50) NULL ,

[property] varchar(50) NOT NULL ,

[id] int NOT NULL IDENTITY(1,1)

)

GO

DBCC CHECKIDENT(N'[dbo].[t\_course]', RESEED, 14)

GO

## 课程管理表：

-- ----------------------------

-- Table structure for t\_courseManage

-- ----------------------------

DROP TABLE [dbo].[t\_courseManage]

GO

CREATE TABLE [dbo].[t\_courseManage] (

[id] int NOT NULL IDENTITY(1,1) ,

[courseId] int NULL ,

[teacherId] int NULL ,

[termId] int NULL ,

[credit] float(53) NULL ,

[creditHours] int NULL

)

GO

DBCC CHECKIDENT(N'[dbo].[t\_courseManage]', RESEED, 9)

GO

## 专业表：

-- ----------------------------

-- Table structure for t\_major

-- ----------------------------

DROP TABLE [dbo].[t\_major]

GO

CREATE TABLE [dbo].[t\_major] (

[id] int NOT NULL IDENTITY(1,1) ,

[majorNum] int NULL ,

[majorName] varchar(50) NULL ,

[academyId] int NULL

)

GO

DBCC CHECKIDENT(N'[dbo].[t\_major]', RESEED, 14)

GO

## 新闻表：

-- ----------------------------

-- Table structure for t\_news

-- ----------------------------

DROP TABLE [dbo].[t\_news]

GO

CREATE TABLE [dbo].[t\_news] (

[id] int NOT NULL IDENTITY(1,1) ,

[newsTitle] varchar(50) NULL ,

[newsBody] varchar(MAX) NULL ,

[newsRepTime] varchar(50) NULL ,

[newsModifyTime] varchar(50) NULL

)

GO

DBCC CHECKIDENT(N'[dbo].[t\_news]', RESEED, 2)

GO

## 操作表：

-- ----------------------------

-- Table structure for t\_option

-- ----------------------------

DROP TABLE [dbo].[t\_option]

GO

CREATE TABLE [dbo].[t\_option] (

[isTeachSystemOn] int NULL DEFAULT ((1)) ,

[isStuSysOn] int NULL DEFAULT ((1)) ,

[isCourseChooseOn] int NULL DEFAULT ((1))

)

GO

## 选课表：

-- ----------------------------

-- Table structure for t\_sc

-- ----------------------------

DROP TABLE [dbo].[t\_sc]

GO

CREATE TABLE [dbo].[t\_sc] (

[stuId] int NULL ,

[cmId] int NULL ,

[usualScore] float(53) NULL DEFAULT ((0)) ,

[testScore] float(53) NULL DEFAULT ((0)) ,

[id] int NOT NULL IDENTITY(1,1) ,

[couldModify] int NULL

)

GO

DBCC CHECKIDENT(N'[dbo].[t\_sc]', RESEED, 24)

GO

IF ((SELECT COUNT(\*) from fn\_listextendedproperty('MS\_Description',

'SCHEMA', N'dbo',

'TABLE', N't\_sc',

NULL, NULL)) > 0)

EXEC sp\_updateextendedproperty @name = N'MS\_Description', @value = N'学生选课表'

, @level0type = 'SCHEMA', @level0name = N'dbo'

, @level1type = 'TABLE', @level1name = N't\_sc'

ELSE

EXEC sp\_addextendedproperty @name = N'MS\_Description', @value = N'学生选课表'

, @level0type = 'SCHEMA', @level0name = N'dbo'

, @level1type = 'TABLE', @level1name = N't\_sc'

GO

## 学生表：

-- ----------------------------

-- Table structure for t\_student

-- ----------------------------

DROP TABLE [dbo].[t\_student]

GO

CREATE TABLE [dbo].[t\_student] (

[name] varchar(50) NOT NULL ,

[sno] varchar(50) NOT NULL ,

[sex] varchar(50) NOT NULL ,

[birth] varchar(50) NULL ,

[nation] varchar(50) NULL ,

[political] varchar(50) NULL ,

[headImage] varchar(50) NULL ,

[classId] int NULL ,

[idNum] varchar(50) NULL ,

[password] varchar(50) NULL ,

[id] int NOT NULL IDENTITY(1,1)

)

GO

DBCC CHECKIDENT(N'[dbo].[t\_student]', RESEED, 14)

GO

## 教师表：

-- ----------------------------

-- Table structure for t\_teacher

-- ----------------------------

DROP TABLE [dbo].[t\_teacher]

GO

CREATE TABLE [dbo].[t\_teacher] (

[id] int NOT NULL IDENTITY(1,1) ,

[techNum] int NOT NULL ,

[teacherName] varchar(50) NOT NULL ,

[sex] varchar(10) NOT NULL ,

[birth] varchar(50) NULL ,

[title] varchar(50) NULL ,

[headImage] varchar(50) NULL ,

[password] varchar(50) NULL

)

GO

DBCC CHECKIDENT(N'[dbo].[t\_teacher]', RESEED, 6)

GO

## 学期表：

-- ----------------------------

-- Table structure for t\_term

-- ----------------------------

DROP TABLE [dbo].[t\_term]

GO

CREATE TABLE [dbo].[t\_term] (

[id] int NOT NULL IDENTITY(1,1) ,

[termName] varchar(50) NULL ,

[isNow] varchar(255) NULL

)

GO

DBCC CHECKIDENT(N'[dbo].[t\_term]', RESEED, 9)

GO

# 三．视图的设计：

## 课程管理的视图：

-- ----------------------------

-- View structure for view\_courseManage

-- ----------------------------

DROP VIEW [dbo].[view\_courseManage]

GO

CREATE VIEW [dbo].[view\_courseManage] AS

SELECT

dbo.t\_course.courseName,

dbo.t\_courseManage.creditHours,

dbo.t\_courseManage.credit,

dbo.t\_term.termName,

dbo.t\_course.property,

dbo.t\_courseManage.courseId,

dbo.t\_courseManage.teacherId,

dbo.t\_courseManage.termId,

dbo.t\_courseManage.id

FROM

dbo.t\_course

INNER JOIN dbo.t\_courseManage ON dbo.t\_course.id = dbo.t\_courseManage.courseId

INNER JOIN dbo.t\_term ON dbo.t\_courseManage.termId = dbo.t\_term.id

GO

## 选课结果的视图：

-- ----------------------------

-- View structure for view\_SC

-- ----------------------------

DROP VIEW [dbo].[view\_SC]

GO

CREATE VIEW [dbo].[view\_SC] AS

SELECT

dbo.t\_student.name,

dbo.t\_student.sno,

dbo.t\_course.courseName,

dbo.t\_course.property,

dbo.t\_teacher.teacherName,

dbo.t\_courseManage.credit,

dbo.t\_courseManage.creditHours,

dbo.t\_sc.testScore,

dbo.t\_sc.stuId,

dbo.t\_sc.cmId,

dbo.t\_sc.id,

dbo.t\_courseManage.termId,

dbo.t\_courseManage.teacherId,

dbo.t\_term.termName,

dbo.t\_major.majorName,

dbo.t\_class.className,

dbo.t\_academy.academyName,

dbo.t\_term.isNow,

dbo.t\_courseManage.courseId,

dbo.t\_sc.usualScore,

dbo.t\_sc.couldModify

FROM

dbo.t\_courseManage

INNER JOIN dbo.t\_sc ON dbo.t\_sc.cmId = dbo.t\_courseManage.id

INNER JOIN dbo.t\_course ON dbo.t\_courseManage.courseId = dbo.t\_course.id

INNER JOIN dbo.t\_teacher ON dbo.t\_courseManage.teacherId = dbo.t\_teacher.id

INNER JOIN dbo.t\_student ON dbo.t\_sc.stuId = dbo.t\_student.id

INNER JOIN dbo.t\_term ON dbo.t\_courseManage.termId = dbo.t\_term.id

INNER JOIN dbo.t\_class ON dbo.t\_student.classId = dbo.t\_class.id

INNER JOIN dbo.t\_major ON dbo.t\_class.majorId = dbo.t\_major.id

INNER JOIN dbo.t\_academy ON dbo.t\_course.academyId = dbo.t\_academy.id AND dbo.t\_major.academyId = dbo.t\_academy.id

GO

## 学生的视图：

-- ----------------------------

-- View structure for view\_student

-- ----------------------------

DROP VIEW [dbo].[view\_student]

GO

CREATE VIEW [dbo].[view\_student] AS

SELECT

dbo.t\_student.id,

dbo.t\_student.name,

dbo.t\_student.sno,

dbo.t\_student.sex,

dbo.t\_student.birth,

dbo.t\_student.nation,

dbo.t\_student.political,

dbo.t\_student.headImage,

dbo.t\_student.idNum,

dbo.t\_class.className,

dbo.t\_major.majorName,

dbo.t\_academy.academyName,

dbo.t\_student.classId

FROM

dbo.t\_student

INNER JOIN dbo.t\_class ON dbo.t\_student.classId = dbo.t\_class.id

INNER JOIN dbo.t\_major ON dbo.t\_class.majorId = dbo.t\_major.id

INNER JOIN dbo.t\_academy ON dbo.t\_major.academyId = dbo.t\_academy.id

GO

## 教师课表的视图：

-- ----------------------------

-- View structure for view\_techCourse

-- ----------------------------

DROP VIEW [dbo].[view\_techCourse]

GO

CREATE VIEW [dbo].[view\_techCourse] AS

SELECT

dbo.t\_teacher.teacherName,

dbo.t\_course.courseName,

dbo.t\_courseManage.credit,

dbo.t\_courseManage.creditHours,

dbo.t\_academy.academyName,

dbo.t\_course.academyId,

dbo.t\_courseManage.courseId,

dbo.t\_courseManage.teacherId,

dbo.t\_courseManage.termId,

dbo.t\_courseManage.id,

dbo.t\_term.termName,

dbo.t\_term.isNow

FROM

dbo.t\_teacher

INNER JOIN dbo.t\_courseManage ON dbo.t\_courseManage.teacherId = dbo.t\_teacher.id

INNER JOIN dbo.t\_course ON dbo.t\_courseManage.courseId = dbo.t\_course.id

INNER JOIN dbo.t\_academy ON dbo.t\_course.academyId = dbo.t\_academy.id

INNER JOIN dbo.t\_term ON dbo.t\_courseManage.termId = dbo.t\_term.id

GO

# 四.主外键：

-- ----------------------------

-- Indexes structure for table t\_academy

-- ----------------------------

-- ----------------------------

-- Primary Key structure for table t\_academy

-- ----------------------------

ALTER TABLE [dbo].[t\_academy] ADD PRIMARY KEY ([id])

GO

-- ----------------------------

-- Indexes structure for table t\_admin

-- ----------------------------

-- ----------------------------

-- Primary Key structure for table t\_admin

-- ----------------------------

ALTER TABLE [dbo].[t\_admin] ADD PRIMARY KEY ([id])

GO

-- ----------------------------

-- Indexes structure for table t\_class

-- ----------------------------

-- ----------------------------

-- Primary Key structure for table t\_class

-- ----------------------------

ALTER TABLE [dbo].[t\_class] ADD PRIMARY KEY ([id])

GO

-- ----------------------------

-- Indexes structure for table t\_course

-- ----------------------------

-- ----------------------------

-- Primary Key structure for table t\_course

-- ----------------------------

ALTER TABLE [dbo].[t\_course] ADD PRIMARY KEY ([id])

GO

-- ----------------------------

-- Indexes structure for table t\_courseManage

-- ----------------------------

-- ----------------------------

-- Primary Key structure for table t\_courseManage

-- ----------------------------

ALTER TABLE [dbo].[t\_courseManage] ADD PRIMARY KEY ([id])

GO

-- ----------------------------

-- Indexes structure for table t\_major

-- ----------------------------

-- ----------------------------

-- Primary Key structure for table t\_major

-- ----------------------------

ALTER TABLE [dbo].[t\_major] ADD PRIMARY KEY ([id])

GO

-- ----------------------------

-- Indexes structure for table t\_news

-- ----------------------------

-- ----------------------------

-- Primary Key structure for table t\_news

-- ----------------------------

ALTER TABLE [dbo].[t\_news] ADD PRIMARY KEY ([id])

GO

-- ----------------------------

-- Indexes structure for table t\_sc

-- ----------------------------

-- ----------------------------

-- Primary Key structure for table t\_sc

-- ----------------------------

ALTER TABLE [dbo].[t\_sc] ADD PRIMARY KEY ([id])

GO

-- ----------------------------

-- Indexes structure for table t\_student

-- ----------------------------

-- ----------------------------

-- Primary Key structure for table t\_student

-- ----------------------------

ALTER TABLE [dbo].[t\_student] ADD PRIMARY KEY ([id])

GO

-- ----------------------------

-- Indexes structure for table t\_teacher

-- ----------------------------

-- ----------------------------

-- Primary Key structure for table t\_teacher

-- ----------------------------

ALTER TABLE [dbo].[t\_teacher] ADD PRIMARY KEY ([id])

GO

-- ----------------------------

-- Indexes structure for table t\_term

-- ----------------------------

-- ----------------------------

-- Primary Key structure for table t\_term

-- ----------------------------

ALTER TABLE [dbo].[t\_term] ADD PRIMARY KEY ([id])

GO

-- ----------------------------

-- Foreign Key structure for table [dbo].[t\_class]

-- ----------------------------

ALTER TABLE [dbo].[t\_class] ADD FOREIGN KEY ([majorId]) REFERENCES [dbo].[t\_major] ([id]) ON DELETE NO ACTION ON UPDATE NO ACTION

GO

-- ----------------------------

-- Foreign Key structure for table [dbo].[t\_course]

-- ----------------------------

ALTER TABLE [dbo].[t\_course] ADD FOREIGN KEY ([academyId]) REFERENCES [dbo].[t\_academy] ([id]) ON DELETE NO ACTION ON UPDATE NO ACTION

GO

-- ----------------------------

-- Foreign Key structure for table [dbo].[t\_courseManage]

-- ----------------------------

ALTER TABLE [dbo].[t\_courseManage] ADD FOREIGN KEY ([courseId]) REFERENCES [dbo].[t\_course] ([id]) ON DELETE NO ACTION ON UPDATE NO ACTION

GO

ALTER TABLE [dbo].[t\_courseManage] ADD FOREIGN KEY ([teacherId]) REFERENCES [dbo].[t\_teacher] ([id]) ON DELETE NO ACTION ON UPDATE NO ACTION

GO

ALTER TABLE [dbo].[t\_courseManage] ADD FOREIGN KEY ([termId]) REFERENCES [dbo].[t\_term] ([id]) ON DELETE NO ACTION ON UPDATE NO ACTION

GO

-- ----------------------------

-- Foreign Key structure for table [dbo].[t\_major]

-- ----------------------------

ALTER TABLE [dbo].[t\_major] ADD FOREIGN KEY ([academyId]) REFERENCES [dbo].[t\_academy] ([id]) ON DELETE NO ACTION ON UPDATE NO ACTION

GO

-- ----------------------------

-- Foreign Key structure for table [dbo].[t\_sc]

-- ----------------------------

ALTER TABLE [dbo].[t\_sc] ADD FOREIGN KEY ([cmId]) REFERENCES [dbo].[t\_courseManage] ([id]) ON DELETE NO ACTION ON UPDATE NO ACTION

GO

ALTER TABLE [dbo].[t\_sc] ADD FOREIGN KEY ([stuId]) REFERENCES [dbo].[t\_student] ([id]) ON DELETE NO ACTION ON UPDATE NO ACTION

GO

-- ----------------------------

-- Foreign Key structure for table [dbo].[t\_student]

-- ----------------------------

ALTER TABLE [dbo].[t\_student] ADD FOREIGN KEY ([classId]) REFERENCES [dbo].[t\_class] ([id]) ON DELETE NO ACTION ON UPDATE NO ACTION

GO