

CS 421
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SQL Tables

Our Tables are highlighted in Yellow and after the tables are our following constraints are in green.

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-- Database: `book_selling`

--

--

-- Table structure for table `author_id`

--

```
CREATE TABLE `author_id` (  
  `Author_ID` int(11) NOT NULL,  
  `Author_First` varchar(32) NOT NULL,  
  `Author_Last` varchar(32) NOT NULL,  
  PRIMARY KEY (`Author_ID`)  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

--

-- Table structure for table `bid`

--

```
CREATE TABLE `bid` (  
  `Bid_ID` int(11) NOT NULL,
```

```
`Student_ID` int(11) NOT NULL,  
`Sem_Book_ID` int(11) NOT NULL,  
`Bid_Ammount` double NOT NULL,  
`Bid_Accepted` tinyint(1) DEFAULT NULL,  
PRIMARY KEY (`Bid_ID`),  
UNIQUE KEY `Student_ID` (`Student_ID`),  
UNIQUE KEY `Sem_Book_ID` (`Sem_Book_ID`)  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

--

-- Table structure for table `book`

--

```
CREATE TABLE `book` (  
`Book_ID` int(11) NOT NULL,  
`Author_ID` int(11) NOT NULL,  
`Title` varchar(32) NOT NULL,  
`Book_Edition` int(11) NOT NULL,  
`ISBN_Number` varchar(16) NOT NULL,  
PRIMARY KEY (`Book_ID`),  
UNIQUE KEY `Author_ID` (`Author_ID`)  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

--

-- Table structure for table `course`

--

```
CREATE TABLE `course` (  
  `Course_ID` int(11) NOT NULL,  
  `Course_Name` varchar(32) NOT NULL,  
  `Alpha_Num` int(11) NOT NULL,  
  PRIMARY KEY (`Course_ID`)  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

--

-- Table structure for table `message`

--

```
CREATE TABLE `message` (  
  `Message_ID` int(11) NOT NULL,  
  `Student_ID1` int(11) NOT NULL,  
  `Student_ID2` int(11) NOT NULL,  
  `Subject` varchar(100) NOT NULL,  
  `Message` varchar(250) NOT NULL,  
  `Time_Sent` timestamp NOT NULL,  
  `Time_Read` timestamp NOT NULL,  
  PRIMARY KEY (`Message_ID`),  
  UNIQUE KEY `Student_ID2` (`Student_ID2`),  
  UNIQUE KEY `Student_ID1` (`Student_ID1`)  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

--

-- Table structure for table `sem_book`

--

```
CREATE TABLE `sem_book` (  
  `Sem_Book_ID` int(11) NOT NULL,  
  `Course_ID` int(11) NOT NULL,  
  `Book_ID` int(11) NOT NULL,  
  `Student_ID` int(11) NOT NULL,  
  `Semester` varchar(32) NOT NULL,  
  `Professor_Name` varchar(32) NOT NULL,  
  `Trans_Type` int(11) NOT NULL,  
  `Time` timestamp NOT NULL,  
  PRIMARY KEY (`Sem_Book_ID`),  
  UNIQUE KEY `Course_ID` (`Course_ID`),  
  UNIQUE KEY `Book_ID` (`Book_ID`),  
  UNIQUE KEY `Student_ID` (`Student_ID`)  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

--

-- Table structure for table `student`

--

```
CREATE TABLE `student` (  
  `ID` int(11) NOT NULL,  
  `Full_Name` varchar(50) NOT NULL,
```

```
`Email` varchar(32) NOT NULL,  
`Password` varchar(250) NOT NULL,  
`Phone_Num` int(32) NOT NULL,  
`Sign_up_date` timestamp NOT NULL  
PRIMARY KEY (`ID`);  
) ENGINE=InnoDB DEFAULT CHARSET=latin1;
```

```
--  
-- Constraints for table `bid`  
--  
ALTER TABLE `bid`  
ADD CONSTRAINT `bid_ibfk_1` FOREIGN KEY (`Student_ID`) REFERENCES `student` (`ID`),  
ADD CONSTRAINT `bid_ibfk_2` FOREIGN KEY (`Sem_Book_ID`) REFERENCES `sem_book`  
(`Sem_Book_ID`);
```

```
--  
-- Constraints for table `book`  
--  
ALTER TABLE `book`  
ADD CONSTRAINT `book_ibfk_1` FOREIGN KEY (`Author_ID`) REFERENCES `author_id` (`Author_ID`);
```

```
--  
-- Constraints for table `message`  
--  
ALTER TABLE `message`  
ADD CONSTRAINT `message_ibfk_1` FOREIGN KEY (`Student_ID1`) REFERENCES `student` (`ID`),  
ADD CONSTRAINT `message_ibfk_2` FOREIGN KEY (`Student_ID2`) REFERENCES `student` (`ID`);
```

```
--
```

```
-- Constraints for table `sem_book`
```

```
--
```

```
ALTER TABLE `sem_book`
```

```
ADD CONSTRAINT `sem_book_ibfk_1` FOREIGN KEY (`Student_ID`) REFERENCES `student` (`ID`),
```

```
ADD CONSTRAINT `sem_book_ibfk_2` FOREIGN KEY (`Course_ID`) REFERENCES `course` (`Course_ID`),
```

```
ADD CONSTRAINT `sem_book_ibfk_3` FOREIGN KEY (`Book_ID`) REFERENCES `book` (`Book_ID`);
```