

```
1 <html>
2 <head>
3 <title>sal2272-W4111-Spring-2026-002-HW1a.ipynb</title>
4 <meta http-equiv="Content-Type" content="text/html
; charset=utf-8">
5 <style type="text/css">
6 .s0 { color: #bcbec4; }
7 .s1 { color: #bcbec4; }
8 .s2 { color: #6aab73; }
9 .s3 { color: #cf8e6d; }
10 .s4 { color: #f75464; }
11 .ls0 { height: 1px; border-width: 0; color: #43454a
; background-color:#43454a}
12 </style>
13 </head>
14 <body bgcolor="#191a1c">
15 <table CELLSPACING=0 CELLPADDING=5 COLS=1 WIDTH="
100%" BGCOLOR="#606060" >
16 <tr><td><center>
17 <font face="Arial, Helvetica" color="#000000">
18 sal2272-W4111-Spring-2026-002-HW1a.ipynb</font>
19 </center></td></tr></table>
20 <pre><span class="s0">#%%
21 &lt;div style="font-size: 32px;"&gt;
22     W4111 Spring 2026 Homework 1a
23 &lt;/div&gt;
24     <hr class="ls0">#%%
25 # Introduction <hr class="ls0">#%%
26 ## Homework Overview <hr class="ls0">#%%
27 There are three parts to the homework.
28 - Part 1 walks you through the setup of your
personal computer that is necessary for this course
. You demonstrate completion by inserting
screenshots or running code cells that demonstrate
you successfully completed setup.&lt;br&gt;&lt;br&
gt;;
29 - Part 2 is a set of written questions that
demonstrate you studied and understand lecture 1
material from the course and from the [lecture 1
slides for the recommended textbook.](https://www.
```

29 db-book.com/slides-dir/index.html)

30 - Part 3 is a set of practical questions demonstrating basic knowledge of relational algebra and SQL.
31
32
33 __This notebook defines only part 1. We will release the remainder of homework 1 after lecture 2 because the homework requires knowing material from the lecture__ <hr class="ls0">% md
34 ## Part 1 \$-\$ Setup <hr class="ls0">% md
35 ### PyCharm <hr class="ls0">% md
36 ##### Install and Start PyCharm <hr class="ls0">% md
37 Install the most recent version of [PyCharm.](<https://www.jetbrains.com/help/pycharm/installation-guide.html>) There is online installation documentation and are several tutorials.
38
39 Students can signup for/register for a free, [one year license](<https://www.jetbrains.com/academy/student-pack/>) to all JetBrains development tools. Please apply for/register for a license using your Columbia University email. Once your registration is confirmed, please activate PyCharm. The documentation explains how to register your product .
40
41 Start PyCharm.
42
43 __Note:__ You may use a different integrated development environment (IDE) for Python if you prefer. For the HW, simply put the screenshots in the places that request PyCharm screenshots. <hr class="ls0">% md
44 ##### Clone Course Project <hr class="ls0">% md
45 Follow the [online instructions](<https://www.jetbrains.com/help/pycharm/set-up-a-git-repository.html#clone-repo>) for
46 [cloning]([https://docs.github.com/en/repositories/](https://docs.github.com/en/repositories)

46 creating-and-managing-repositories/cloning-a-
repository) a GitHub project in PyCharm.
47
48 You will choose a local directory where you want to
store your clone of the project.
49
50 The HTTPS URL for cloning the repository is https
://github.com/donald-f-ferguson/W4111-Intro-to-
Databases-Spring-2026. <hr class="ls0">% md
51 ##### Initialize the Virtual Environment and Jupyter
Notebook Environment <hr class="ls0">% md
52 Follow the [online instructions](https://www.
jetbrains.com/help/pycharm/creating-virtual-
environment.html) to create a new Python
environment for the project. Once you have setup
the Python environment, open a terminal window
inside PyCharm. You can open a terminal window by
clicking on the icon in the left
53 sidebar. The icon is highlighted in blue in the
image below.
54
55 You will see a command prompt. The specific prompt
you see will vary based on the operating system you
are using.
56
57 | <img src="pycharm-1.jpg" width="750px"; |
58 | :---: |
59 | PyCharm Terminal Window | <hr class="ls0">% md
60 In the terminal window, type the command `pip
install jupyter`
61
62 When the installation completes, type the command
`jupyter notebook` This will start a Jupyter
Notebook environment on your PC. A browser window
will open that should something like
63
64 | <img src="jupyter-1.jpg"; |
65 | :---: |
66 | __Jupyter Notebook__ | <hr class="ls0">% md
67 Navigate to the folder `Homework/HW1` and open

```
67 the Jupyter Notebook ` `` W4111-Spring-2026-002-HW1a  
.ipynb` ``.  
68  
69 __Note:__ If you do not see the directories. 1)  
Stop jupyter notebook. 2) In the terminal window,  
navigate to your home directory. 3) Start jupyter  
notebook. 4) In the browser window, navigate to  
the directory where you cloned the project. 5)  
Navigate to the folder containing the notebook and  
open it. <hr class="ls0">#% md  
70 ## Using Jupyter Notebook <hr class="ls0">#% md  
71 ### Getting Started <hr class="ls0">#% md  
72 There are several good, online introductions to  
using Jupyter notebooks. For example,  
73 [How to Use Jupyter Notebook: A Beginner's  
Tutorial.](https://www.dataquest.io/blog/jupyter-notebook-tutorial/) There are many, many other  
ones. If you are unfamiliar with Jupyter notebooks  
, please follow one of the tutorials.  
74  
75 You will complete the homework in the notebook you  
opened. <hr class="ls0">#% md  
76 ### Complete Personal Information <hr class="ls0">  
#% md  
77 Rename this notebook file to "xyz1234-W4111-  
Fall-2025-002-HW1.ipynb" where ` `xyz1234` `  
is your UNI. This replaces ` `dff9` ` in the  
implementation template. We suggest that you  
accomplish this by making a copy of the notebook  
and renaming the copy. This allows you to retain  
the original for reference.  
78  
79 In the table below, replace Professor Ferguson's  
personal information with your personal  
information by editing the markdown cell and table  
.  
80  
81 | Field | Value |  
82 | :---: | :---: |  
83 | UNI | sal2272 |  
84 | Last name | Luna |
```

```
85 | First name | Shantell | <hr class="ls0">%# md
86 ### Demonstrate PyCharm <hr class="ls0">%# md
87 Take a screen capture of your PyCharm window. Copy
    the file into the same directory as this notebook
    . Edit the markdown cell below to display your
    image. __Make sure that the terminal window shows
    that you are in a directory on your laptop.__ <hr
    class="ls0">%# md
88 | &lt;img src="./images/Demonstrate_PyCharm.
    png"&gt; |
89 |-----:|
90 |           __My PyCharm__ | <
    hr class="ls0">%# md
91 ## MySQL <hr class="ls0">%# md
92 Install [MySQL Server Community Edition.](https://dev.mysql.com/downloads/mysql/) There are several
    ways to install and several online tutorials.
    Follow one of the online tutorials or instructions
    that are appropriate for your operating system.
    _REMEMBER THE USER NAME AND PASSWORD FOR THE ROOT
    ACCOUNT._
```

93

94 __Note:__ If you have an old version of MacOS,
 Linux or Windows, _make sure you choose a version
 of MySQL that is compatible with your operating
 system version._ You may have to get an older
 version from the [archive] (<https://downloads.mysql.com/archives/installer/>) or update your OS
 version. <hr class="ls0">%# md

95 After completing the installation, open a new
 terminal window. You can use a native window or
 open a new window in PyCharm.

96

97 Type the command `` `mysql -u root -p` `` . If the
 command is not found, you can navigate to the
 installation directory for MySQL and reenter the
 command.

98 - The installation directory on a Mac is usually
 `` `/usr/local/mysql/bin.` `` If you used Homebrew
 to install, the directory may be different.

99 - On Windows, the directory is usually `` C:\

```
99 Program Files\MySQL\MySQL Server X.Y\bin``` where
```X.Y``` is the version of MySQL you installed.
100
101 Enter the password you set for ```root.``` This
 should open a command prompt for MySQL. Enter the
 command ```show databases;``` Your list of
 databases will be much shorter than mine.
102
103 Take a screenshot and replace the image below with
 your screenshot. Please make sure that your
 screenshot shows a directory indicating that the
 screenshot was taken on your PC. You can do this
 by navigating to your home directory and printing
 the working directory.
104 <hr class="ls0">#%%
105 | |
106 | :---: |
107 | __My PyCharm__ | <hr class="ls0">#%%
108 ### ipython-sql <hr class="ls0">#%%
109 Execute the Python cell below to install [ipython-
 sql.](https://pypi.org/project/ipython-sql/) Your
 status and progress messages will be different
 from mine. As long as they complete without an
 error, you should be fine.
110
111 There are several online documentation and
 tutorial pages that explain the installation
 process. <hr class="ls0">#%%
112 %
 pip install pymysql
113 %pip
 install sqlalchemy
114 %pip
 install ipython-<
 span class="s0">sql<hr class="ls0">#%%
115 Execute the following Python cell. Your result may
 be slightly different. You are fine as long as
 you do not get an error message. <hr class="ls0">
 #%%
116 %
```

```
116 load_ext sql<hr class="ls0"><span class="s0"
 ">%>% md
117 Set the proper root user ID and password for MySQL
 in the python cell below. <hr class="ls0">%%
118 mysql_root_user = <
 span class="s2">'root'
119 mysql_root_password = '
 Ramos11737757827! '
120
121 mysql_url <span class="s1"
 >= f"mysql+pymysql://
 {
 mysql_root_user}<
 span class="s2">:{<
 span class="s0">mysql_root_password}@localhost&
 quot;<hr class="ls0">%%
122 mysql_url<hr class="ls0">
 "%>% md
123 %
 sql $<span class="
 s0">mysql_url<hr class="ls0"><span class="
 s0">%>% md
124 Run the following cell. Your list of databases
 should be different. <hr class="ls0">%%
125 %
 config SqlMagic.<
 span class="s0">style = </
 span>'_DEPRECATED_DEFAULT'
126 %sql show
 databases;<hr class="ls0"><span class="s0"
 >%>% md
127 If you get here, ``ipython-sql`` is installed
 and working. <hr class="ls0">%>% md
128 ## DataGrip <hr class="ls0">%>% md
129 Install [DataGrip.](https://www.jetbrains.com/help/datagrip/installation-guide.html) There is online
 documentation and are several tutorials.
130
131 Follow the online instructions to register your
```

```
131 installation using the ID you set up when getting
a free license.
132
133 Start DataGrip.
134
135 Follow the [online instructions](https://www.jetbrains.com/help/datagrip/connecting-to-a-database.html) to create a connection to your local instance of MySQL. You may have to choose the option to install the database drivers.
136
137 Open a [query console](https://www.jetbrains.com/help/datagrip/query-consoles.html#overview) on your local database connection.
138
139 In the query console, enter the command. ````SHOW
VARIABLES WHERE Variable_name = 'hostname';````
Take a screenshot and replace the image below with your screenshot. Make sure the image shows the query execution result.
140
141 <hr class="ls0">%# md
142 | <img src="./images/DataGrip_SS.png"
;> |
143 |-----:
144 | __DataGrip__ | <hr class
="ls0">%# md
145 ## Sample Database <hr class="ls0">%# md
146 Execute the following ipython-sql cell. You must be successfully connect to MySQL using the previous ````%sql``` command.
147
148 As long as you do not get any error messages, you have successfully create the sample database. <hr class="ls0">%#
149 %sql
150
151 drop schema if exists db_book;
152 create schema db_book;
153 use db_book;
154
```

```
155 drop table if exists prereq;
156 drop table if exists time_slot;
157 drop table if exists advisor;
158 drop table if exists takes;
159 drop table if exists student;
160 drop table if exists teaches;
161 drop table if exists section;
162 drop table if exists instructor;
163 drop table if exists course;
164 drop table if exists department;
165 drop table if exists classroom;
166
167
168
169 create table classroom
170 (building varchar(15),
171 room_number varchar(7),
172 capacity numeric(4,0),
173 primary key (building, room_number)
174);
175
176 create table department
177 (dept_name varchar(20),
178 building varchar(15),
179 budget numeric(12,2) check (
180 budget > 0),
181 primary key (dept_name)
182);
183
184 create table course
185 (course_id varchar(8),
186 title varchar(50),
187 dept_name varchar(20),
188 credits numeric(2,0) check (credits &
189 gt; 0),
190 primary key (course_id),
191 foreign key (dept_name) references department
192 (dept_name)
193 on delete set null
194);
195
```

```
193 create table instructor
194 (ID varchar(5),
195 name varchar(20) not null,
196 dept_name varchar(20),
197 salary numeric(8,2) check (salary >
198 ; 29000),
199 primary key (ID),
200 foreign key (dept_name) references department
201 (dept_name)
202 on delete set null
203);
204
205
206
207
208
209
210
211
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216
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218
219
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223
224
225
```

create table section  
(course\_id varchar(8),  
sec\_id varchar(8),  
semester varchar(6)  
check (semester in ('Fall', 'Winter', '  
Spring', 'Summer')),  
year numeric(4,0) check (year >  
1701 and year < 2100),  
building varchar(15),  
room\_number varchar(7),  
time\_slot\_id varchar(4),  
primary key (course\_id, sec\_id, semester,  
year),  
foreign key (course\_id) references course (  
course\_id)  
on delete cascade,  
foreign key (building, room\_number)  
references classroom (building, room\_number)  
on delete set null  
);  
  
create table teaches  
(ID varchar(5),  
course\_id varchar(8),  
sec\_id varchar(8),  
semester varchar(6),  
year numeric(4,0),  
primary key (ID, course\_id, sec\_id, semester  
, year),

```
226 foreign key (course_id, sec_id, semester,
227 year) references section (course_id, sec_id,
228 semester, year)
229 on delete cascade,
230 foreign key (ID) references instructor (ID)
231 on delete cascade
232);
233
234 create table student
235 (ID varchar(5),
236 name varchar(20) not null,
237 dept_name varchar(20),
238 tot_cred numeric(3,0) check (tot_cred &
239 gt;= 0),
240 primary key (ID),
241 foreign key (dept_name) references department
242 (dept_name)
243 on delete set null
244);
245
246 create table takes
247 (ID varchar(5),
248 course_id varchar(8),
249 sec_id varchar(8),
250 semester varchar(6),
251 year numeric(4,0),
252 grade varchar(2),
253 primary key (ID, course_id, sec_id, semester
254 , year),
255 foreign key (course_id, sec_id, semester,
256 year) references section (course_id, sec_id,
257 semester, year)
258 on delete cascade,
259 foreign key (ID) references student (ID)
260 on delete cascade
261);
262
263 create table advisor
264 (s_ID varchar(5),
265 i_ID varchar(5),
266 primary key (s_ID),
```

```
260 foreign key (i_ID) references instructor (ID
)
261 on delete set null,
262 foreign key (s_ID) references student (ID)
263 on delete cascade
264);
265
266 create table time_slot
267 (time_slot_id varchar(4),
268 day varchar(1),
269 start_hr numeric(2) check (start_hr >
 := 0 and start_hr < 24),
270 start_min numeric(2) check (start_min &
 gt;:= 0 and start_min < 60),
271 end_hr numeric(2) check (end_hr >
 = 0 and end_hr < 24),
272 end_min numeric(2) check (end_min >
 = 0 and end_min < 60),
273 primary key (time_slot_id, day, start_hr,
274 start_min)
275);
276 create table prereq
277 (course_id varchar(8),
278 prereq_id varchar(8),
279 primary key (course_id, prereq_id),
280 foreign key (course_id) references course (
281 course_id)
282 on delete cascade,
283 foreign key (prereq_id) references course (
284 course_id)
285);
286 delete from prereq;
287 delete from time_slot;
288 delete from advisor;
289 delete from takes;
290 delete from student;
291 delete from teaches;
292 delete from section;
293 delete from instructor;
```

```
293 delete from course;
294 delete from department;
295 delete from classroom;
296 insert into classroom values ('Packard', '101', '500');
297 insert into classroom values ('Painter', '514', '10');
298 insert into classroom values ('Taylor', '3128', '70');
299 insert into classroom values ('Watson', '100', '30');
300 insert into classroom values ('Watson', '120', '50');
301 insert into department values ('Biology', 'Watson', '90000');
302 insert into department values ('Comp. Sci.', 'Taylor', '100000');
303 insert into department values ('Elec. Eng.', 'Taylor', '85000');
304 insert into department values ('Finance', 'Painter', '120000');
305 insert into department values ('History', 'Painter', '50000');
306 insert into department values ('Music', 'Packard', '80000');
307 insert into department values ('Physics', 'Watson', '70000');
308 insert into course values ('BIO-101', 'Intro. to Biology', 'Biology', '4');
309 insert into course values ('BIO-301', 'Genetics', 'Biology', '4');
310 insert into course values ('BIO-399', 'Computational Biology', 'Biology', '3');
311 insert into course values ('CS-101', 'Intro. to Computer Science', 'Comp. Sci.', '4');
312 insert into course values ('CS-190', 'Game Design', 'Comp. Sci.', '4');
313 insert into course values ('CS-315', 'Robotics', 'Comp. Sci.', '3');
314 insert into course values ('CS-319', 'Image Processing', 'Comp. Sci.', '3');
```

```
315 insert into course values ('CS-347', 'Database
System Concepts', 'Comp. Sci.', '3');
316 insert into course values ('EE-181', 'Intro. to
Digital Systems', 'Elec. Eng.', '3');
317 insert into course values ('FIN-201', 'Investment
Banking', 'Finance', '3');
318 insert into course values ('HIS-351', 'World
History', 'History', '3');
319 insert into course values ('MU-199', 'Music Video
Production', 'Music', '3');
320 insert into course values ('PHY-101', 'Physical
Principles', 'Physics', '4');
321 insert into instructor values ('10101', '
Srinivasan', 'Comp. Sci.', '65000');
322 insert into instructor values ('12121', 'Wu', '
Finance', '90000');
323 insert into instructor values ('15151', 'Mozart
, 'Music', '40000');
324 insert into instructor values ('22222', 'Einstein
, 'Physics', '95000');
325 insert into instructor values ('32343', 'El Said
, 'History', '60000');
326 insert into instructor values ('33456', 'Gold', '
Physics', '87000');
327 insert into instructor values ('45565', 'Katz', '
Comp. Sci.', '75000');
328 insert into instructor values ('58583', 'Califieri
, 'History', '62000');
329 insert into instructor values ('76543', 'Singh', '
Finance', '80000');
330 insert into instructor values ('76766', 'Crick', '
Biology', '72000');
331 insert into instructor values ('83821', 'Brandt
, 'Comp. Sci.', '92000');
332 insert into instructor values ('98345', 'Kim', '
Elec. Eng.', '80000');
333 insert into section values ('BIO-101', '1', '
Summer', '2017', 'Painter', '514', 'B');
334 insert into section values ('BIO-301', '1', '
Summer', '2018', 'Painter', '514', 'A');
335 insert into section values ('CS-101', '1', 'Fall
```

```
335 ', '2017', 'Packard', '101', 'H');
336 insert into section values ('CS-101', '1', 'Spring
', '2018', 'Packard', '101', 'F');
337 insert into section values ('CS-190', '1', 'Spring
', '2017', 'Taylor', '3128', 'E');
338 insert into section values ('CS-190', '2', 'Spring
', '2017', 'Taylor', '3128', 'A');
339 insert into section values ('CS-315', '1', 'Spring
', '2018', 'Watson', '120', 'D');
340 insert into section values ('CS-319', '1', 'Spring
', '2018', 'Watson', '100', 'B');
341 insert into section values ('CS-319', '2', 'Spring
', '2018', 'Taylor', '3128', 'C');
342 insert into section values ('CS-347', '1', 'Fall
', '2017', 'Taylor', '3128', 'A');
343 insert into section values ('EE-181', '1', 'Spring
', '2017', 'Taylor', '3128', 'C');
344 insert into section values ('FIN-201', '1', 'Spring
', '2018', 'Packard', '101', 'B');
345 insert into section values ('HIS-351', '1', 'Spring
', '2018', 'Painter', '514', 'C');
346 insert into section values ('MU-199', '1', 'Spring
', '2018', 'Packard', '101', 'D');
347 insert into section values ('PHY-101', '1', 'Fall
', '2017', 'Watson', '100', 'A');
348 insert into teaches values ('10101', 'CS-101', '1
', 'Fall', '2017');
349 insert into teaches values ('10101', 'CS-315', '1
', 'Spring', '2018');
350 insert into teaches values ('10101', 'CS-347', '1
', 'Fall', '2017');
351 insert into teaches values ('12121', 'FIN-201', '1
', 'Spring', '2018');
352 insert into teaches values ('15151', 'MU-199', '1
', 'Spring', '2018');
353 insert into teaches values ('22222', 'PHY-101', '1
', 'Fall', '2017');
354 insert into teaches values ('32343', 'HIS-351', '1
', 'Spring', '2018');
355 insert into teaches values ('45565', 'CS-101', '1
', 'Spring', '2018');
```

```
356 insert into teaches values ('45565', 'CS-319', '1
', 'Spring', '2018');
357 insert into teaches values ('76766', 'BIO-101', '1
', 'Summer', '2017');
358 insert into teaches values ('76766', 'BIO-301', '1
', 'Summer', '2018');
359 insert into teaches values ('83821', 'CS-190', '1
', 'Spring', '2017');
360 insert into teaches values ('83821', 'CS-190', '2
', 'Spring', '2017');
361 insert into teaches values ('83821', 'CS-319', '2
', 'Spring', '2018');
362 insert into teaches values ('98345', 'EE-181', '1
', 'Spring', '2017');
363 insert into student values ('00128', 'Zhang', '
Comp. Sci.', '102');
364 insert into student values ('12345', 'Shankar', '
Comp. Sci.', '32');
365 insert into student values ('19991', 'Brandt', '
History', '80');
366 insert into student values ('23121', 'Chavez', '
Finance', '110');
367 insert into student values ('44553', 'Peltier', '
Physics', '56');
368 insert into student values ('45678', 'Levy', '
Physics', '46');
369 insert into student values ('54321', 'Williams', '
Comp. Sci.', '54');
370 insert into student values ('55739', 'Sanchez', '
Music', '38');
371 insert into student values ('70557', 'Snow', '
Physics', '0');
372 insert into student values ('76543', 'Brown', '
Comp. Sci.', '58');
373 insert into student values ('76653', 'Aoi', 'Elec
. Eng.', '60');
374 insert into student values ('98765', 'Bourikas', '
Elec. Eng.', '98');
375 insert into student values ('98988', 'Tanaka', '
Biology', '120');
376 insert into takes values ('00128', 'CS-101', '1
```

```
376 ', 'Fall', '2017', 'A');
```

```
377 insert into takes values ('00128', 'CS-347', '1
', 'Fall', '2017', 'A-');
```

```
378 insert into takes values ('12345', 'CS-101', '1
', 'Fall', '2017', 'C');
```

```
379 insert into takes values ('12345', 'CS-190', '2
', 'Spring', '2017', 'A');
```

```
380 insert into takes values ('12345', 'CS-315', '1
', 'Spring', '2018', 'A');
```

```
381 insert into takes values ('12345', 'CS-347', '1
', 'Fall', '2017', 'A');
```

```
382 insert into takes values ('19991', 'HIS-351', '1
', 'Spring', '2018', 'B');
```

```
383 insert into takes values ('23121', 'FIN-201', '1
', 'Spring', '2018', 'C+');
```

```
384 insert into takes values ('44553', 'PHY-101', '1
', 'Fall', '2017', 'B-');
```

```
385 insert into takes values ('45678', 'CS-101', '1
', 'Fall', '2017', 'F');
```

```
386 insert into takes values ('45678', 'CS-101', '1
', 'Spring', '2018', 'B+');
```

```
387 insert into takes values ('45678', 'CS-319', '1
', 'Spring', '2018', 'B');
```

```
388 insert into takes values ('54321', 'CS-101', '1
', 'Fall', '2017', 'A-');
```

```
389 insert into takes values ('54321', 'CS-190', '2
', 'Spring', '2017', 'B+');
```

```
390 insert into takes values ('55739', 'MU-199', '1
', 'Spring', '2018', 'A-');
```

```
391 insert into takes values ('76543', 'CS-101', '1
', 'Fall', '2017', 'A');
```

```
392 insert into takes values ('76543', 'CS-319', '2
', 'Spring', '2018', 'A');
```

```
393 insert into takes values ('76653', 'EE-181', '1
', 'Spring', '2017', 'C');
```

```
394 insert into takes values ('98765', 'CS-101', '1
', 'Fall', '2017', 'C-');
```

```
395 insert into takes values ('98765', 'CS-315', '1
', 'Spring', '2018', 'B');
```

```
396 insert into takes values ('98988', 'BIO-101', '1
', 'Summer', '2017', 'A');
```

```
397 insert into takes values ('98988', 'BIO-301', '1
 ', 'Summer', '2018', null);
398 insert into advisor values ('00128', '45565');
399 insert into advisor values ('12345', '10101');
400 insert into advisor values ('23121', '76543');
401 insert into advisor values ('44553', '22222');
402 insert into advisor values ('45678', '22222');
403 insert into advisor values ('76543', '45565');
404 insert into advisor values ('76653', '98345');
405 insert into advisor values ('98765', '98345');
406 insert into advisor values ('98988', '76766');
407 insert into time_slot values ('A', 'M', '8', '0
 ', '8', '50');
408 insert into time_slot values ('A', 'W', '8', '0
 ', '8', '50');
409 insert into time_slot values ('A', 'F', '8', '0
 ', '8', '50');
410 insert into time_slot values ('B', 'M', '9', '0
 ', '9', '50');
411 insert into time_slot values ('B', 'W', '9', '0
 ', '9', '50');
412 insert into time_slot values ('B', 'F', '9', '0
 ', '9', '50');
413 insert into time_slot values ('C', 'M', '11', '0
 ', '11', '50');
414 insert into time_slot values ('C', 'W', '11', '0
 ', '11', '50');
415 insert into time_slot values ('C', 'F', '11', '0
 ', '11', '50');
416 insert into time_slot values ('D', 'M', '13', '0
 ', '13', '50');
417 insert into time_slot values ('D', 'W', '13', '0
 ', '13', '50');
418 insert into time_slot values ('D', 'F', '13', '0
 ', '13', '50');
419 insert into time_slot values ('E', 'T', '10', '30
 ', '11', '45');
420 insert into time_slot values ('E', 'R', '10', '30
 ', '11', '45');
421 insert into time_slot values ('F', 'T', '14', '30
 ', '15', '45');
```

```

422 insert into time_slot values ('F', 'R', '14', '30
 ', '15', '45 ');
423 insert into time_slot values ('G', 'M', '16', '0
 ', '16', '50');
424 insert into time_slot values ('G', 'W', '16', '0
 ', '16', '50');
425 insert into time_slot values ('G', 'F', '16', '0
 ', '16', '50');
426 insert into time_slot values ('H', 'W', '10', '0
 ', '12', '30');
427 insert into prereq values ('BI0-301', 'BI0-101');
428 insert into prereq values ('BI0-399', 'BI0-101');
429 insert into prereq values ('CS-190', 'CS-101');
430 insert into prereq values ('CS-315', 'CS-101');
431 insert into prereq values ('CS-319', 'CS-101');
432 insert into prereq values ('CS-347', 'CS-101');
433 insert into prereq values ('EE-181', 'PHY-101'); <
 hr class="ls0">#% md
434 Execute the following cell to verify that you have
 correctly created and loaded the sample database
 . <hr class="ls0">#%
435 %
 sql select *from db_book</
 span>.
 student where dept_name=</
 span>'Comp. Sci.'<hr class
 ="ls0">#% md
436 ### Summary <hr class="ls0">#% md
437 If you were able to accomplish all of the tasks
 above, you successfully completed part 1 of
 homework 1. <hr class="ls0">#% md
438 ## Create PDF <hr class="ls0">#% md
439 1. Use the ``File -> Save and Export Notebook
 as -> HTML`` option to save your notebook as
 an HTML file.
440 2. Copy the created HTML file to the same
 directory as the notebook and images you created.
441 3. Open the HTML file in a browser.
442 4. Using the _browser's_ ``File -> Print``
 option print the HTML file to a PDF. This is your

```

```
442 submission format.
443 5. Follow the submission instructions on Ed
Discussion to submit your file to GradeScope. <hr
class="ls0">%
444 </pre>
445 </body>
446 </html>
```