1. Create the tables based on the following tables instance charts. Choose the appropriate data types and be sure to add integrity constraints.
2. Table name : MEMBER

|  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- |
| Column\_  Name | MEMBER\_  ID | LAST \_  NAME | FIRST\_  NAME | ADDRESS | CITY | PHONE | JOIN-  DATE |
| Key  Type | PK |  |  |  |  |  |  |
| Null/  Unique | NN,U | NN |  |  |  |  | NN |
| Default  Value |  |  |  |  |  |  | SYSTEM DATE |
| Data  Type | NUMBER | VARCHAR2 | VARCHAR2 | VARCHAR2 | VARCHAR2 | VARCHAR2 | DATE |
| Length | 10 | 25 | 25 | 100 | 30 | 15 |  |

1. Table name: TITLE

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Column\_  Name | TITLE\_ID | TITLE | DESCRIPTION | RATING | CATEGORY | RELEASE\_  DATE |
| Key  Type | PK |  |  |  |  |  |
| Null/  Unique | NN,U | NN | NN |  |  |  |
| Check |  |  |  | G, PG, R,  NC17, NR | DRAMA,  COMEDY,  ACTION,  CHILD,  SCIFI,  DOCUMENTARY |  |
| Data Type | NUMBER | VARCHAR2 | VARCHAR2 | VARCHAR2 | VARCHAR2 | DATE |
| Length | 10 | 60 | 400 | 4 | 20 |  |

1. Table name: TITLE\_COPY

|  |  |  |  |
| --- | --- | --- | --- |
| Column name | COPY\_ID | TITLE\_ID | STATUS |
| Key Type | PK | PK,FK |  |
| Null/Unique | NN,U | NN,U | NN |
| Check |  |  | AVAILABLE,  DESTROYED,  RENTED,  RESERVED |
| FK Ref table |  | TITLE |  |
| FK Ref Col |  | TITLE\_ID |  |
| Data Type | NUMBER | NUMBER | VARCHAR2 |
| Length | 10 | 10 | 15 |

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Column  Name | BOOK\_  DATE | MEMBER\_  ID | COPY\_  ID | ACT\_RET\_  DATE | EXP\_RET\_  DATE | TITLE  ID |
| Key  Type | PK | PK,FK1 | PK,FK2 |  |  | PK,2 |
| Default  Value | SYSTEM  DATE |  |  |  | SYSTEM  DATE +2 |  |
| FK Ref  Table |  | MEMBER | TITLE\_  COPY |  |  | TITLE\_  COPY |
| FK Ref  Col |  | MEMBER\_  ID | COPY\_ID |  |  | TITLE\_COPY |
| Data  Type | DATE | NJMBER | NUMBER | DATE | DATE | NUMBER |
| Length |  | 10 | 10 |  |  | 10 |

1. Table name: RENTAL
2. Table name: RESERVATION

|  |  |  |  |
| --- | --- | --- | --- |
| Column Name | RES\_DATE | MEMBER\_ ID | TITLE\_ID |
| Key Type | PK | PK,FK1 | PK,FK2 |
| Null/Unique | NN,U | NN,U | NN |
| FK Ref Table |  | MEMBER | TITLE |
| FK Ref column |  | MEMBER\_ID | TITLE\_ID |
| Data Type | DATE | NUMBER | NUMBER |
| Length |  | 10 | 10 |

1. Add data to the MEMBER table. Place the insert statements in a script named lab14\_4b.sql. Execute commands in the script. Be sure to use the sequence to add the member numbers.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| First\_  Name | Last Name | Address | City | Phone | Join Date |
| Carmen | Velasquez | 283 King  Street | Seattle | 206-899-6666 | 08-MAR-1990 |
| LaDoris | Ngao | 5 Modrany | Bratislava | 586-355-8882 | 08-MAR-1990 |
| Midori | Nagayama | 68 Via Centrale | Sao Paolo | 254-852-5764 | 17-JUN-1991 |
| Mark | Quick-to-see | 6921 King Way | Lagos | 63-559-7777 | 07-APR-1990 |
| Audry | Repeburn | 86 Chu Street | Hong Kong | 41-559-87 | 19-JAN-1991 |
| Molly | Urguhart | 3035 Laurier | Quebec | 418-542-9988 | 18-JAN-1991 |

Practice 14 (continued)

3. Add the following movie copies in the TITLE\_COPY table:

Note: Have the TITLE\_ID number available for this exercise.

|  |  |  |
| --- | --- | --- |
| Title | Copy\_id | Status |
| Wilie and Christmas Too | 1 | AVAILABLE |
| Alien Again | 2 | AVAILABLE |
| My Days Off | 3 | RENTED |
| The Glob | 4 | AVAILABLE |
| My Day Off | 5 | AVAILABLE |
| Miracles on Ice | 6 | AVAILABLE |
| Soda Gang | 7 | RENTED |

4. Add the following rental to the RENTAL table:

Note: Title number may be different depending on sequence number.

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Title\_id | Copy\_id | Member\_id | Book\_date | Exp\_Ret\_date | Act\_Ret\_date |
| 92 | 1 | 101 | 3 days ago | 1 day ago | 2 days ago |
| 93 | 2 | 101 | 1 day ago | 1 day from now |  |
| 94 | 3 | 102 | 2 days ago | Today |  |
| 97 | 1 | 106 | 4 days ago | 2 days ago | 2 days ago |

5. Create a view named TITLE\_AVAIL to show the movies titles and the availability of each copy and its expected return date if rented. Query all rows from the view. Order the results by title.

|  |  |  |  |
| --- | --- | --- | --- |
| TITLE | COPY\_ID | STATUS | EXP\_RET\_DT |
| Alien Again | 2 | AVAILABLE |  |
| Alien Again | 2 | RENTED | 26-SEP-01 |
| Miracles on Ice | 6 | AVAILABLE |  |
| My Day Off | 3 | AVAILABLE |  |
| My Day Off | 3 | AVAILABLE | 27-SEP-01 |
| My Day Off | 3 | AVAILABLE | 25-SEP-01 |
| Soda Gang | 7 | AVAILABLE |  |
| The Glob | 4 | AVAILABLE | 26-SEP-01 |
| Willie and Christmas too | 1 | AVAILABLE | 26-SEP-01 |

6. Make changes to data in the tables.

1. Add a new title. The movie is “Interstellar Wars”, which is rated PG and classified as a science fiction movie. The release date is 07-JUL-23. The description is “Futuristic interstellar action movie. Can the rebels save the humans from the evil empire?” Be sure to add a title copy record for two copies.
2. Enter two reservations. One reservation is for Carmen Velasquez, who wants to rent “Interstellar Wars.” The other is for Mark Quick-to-See, who wants to rent “Soda Gang”.
3. Customer carmen velasquez rents the movie Interstellar wars copy 1. Record the information about the rental. Allow the default value for the expected return date to be used. Verify that the rental was recorded by using the view you created.

7. make a modification to one of the tables.

1. Add a PRICE column to the TITLE table to record the purchase price of the video. The column should have a total length of eight digits and two decimal places. Verify your modifications.

|  |  |  |
| --- | --- | --- |
| Name | Null | Type |
| TITLE\_ID | NOT NULL | NUMERIC(10) |
| TITLE | NOT NULL | VARCHAR(60) |
| DESCRIPTION | NOT NULL | VARCHAR(400) |
| RATING |  | VARCHAR(4) |
| CATEGORY |  | VARCHAR(20) |
| RELEASE\_DATE |  | DATE |
| PRICE |  | NUMERIC |

1. Create a script named 1ab14\_7b.sql that contains update statements that update each video with a price according to the following list. Run the commands in the script.

|  |  |
| --- | --- |
| Title | Price |
| Willie and Christmas Too | 25 |
| Alien Again | 35 |
| The Glob | 35 |
| My Day off | 35 |
| Miracles on Ice | 30 |
| Soda Gang | 35 |
| Interstellar Wars | 29 |

1. Make sure that in the future all titles contain a price value. Verify the constraint.

|  |  |  |
| --- | --- | --- |
| CONSTRAINT\_NAME | C | SEARCH\_CONDITION |
| TITLE\_TITLE\_NN | C | \*TITLE\* IS NOT NULL |

\*\*\*

|  |  |  |
| --- | --- | --- |
| TITLE\_PRICE\_NN | C | \*PRICE\* IS NOT NULL |

8. CREATE A REPORT TITLED CUSTOMER History Report. This report contains each customer’s history of renting videos. Be sure to include the customer’s name, movie rented, dates of the rental and duration of rentals. Total the number of rentals for all customer for the reporting period. Save the commands that generate to report in a script file named 1ab4\_8.sql

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|  |  |  |  |
| --- | --- | --- | --- |
| MEMBER | TITLE | BOOK\_DATE | DURATION |
| Carmen Velasquez | Willie and Christmas Too | 24-SEP-01 | 1 |
|  | Alien Again | 26-SEP-01 |  |
|  | Interstellar Wars | 27-SEP-01 |  |
| LaDoris Ngao | My Day Off | 25-SEP-01 |  |
| Molly Urguhart | Soda Gang | 23-SEP-01 | 2 |