Account script:

DROP TABLE accounts;

CREATE TABLE accounts (accid NUMBER(6) primary key,

balance NUMBER (10,2),

check (balance>=0));

INSERT INTO accounts VALUES (7715, 7000);

INSERT INTO accounts VALUES (7720, 5100);

INSERT INTO accounts VALUES (7725, 20);

INSERT INTO accounts VALUES (7730, 49);

COMMIT;

Yêu cầu: Làm các bài tập sau, trong quá trình chạy nếu session nào xảy ra lỗi thì copy lỗi mà database output ra vào file bài làm ứng với session đó. Nêu thứ tự thực thi của các câu lệnh trong khối lệnh ở hai session, giải thích kết quả sau khi chạy xong.

|  |  |
| --- | --- |
| accid | balance |
| 7715 | 7000 |
| 7720 | 5100 |
| 7725 | 20 |
| 7730 | 49 |

Open two session (Ctrl + Shift + N) and do the following things.

SESSION 1: Transfer money ($500) from account 7715 to 7720

SESSION 2: Transfer money ($800) from account 7715 to 7725

|  |  |
| --- | --- |
| acc 7715: -500$ |  |
|  | Acc 7715: -800$ |
| Acc 7720: +500$ | Acc 7725: +800$ |

|  |  |  |
| --- | --- | --- |
| **T** | **Session 1** | **Session 2** |
|  | select \* from accounts; | select \* from accounts; |
|  | begin  update accounts  set balance=balance-500  where accid=7715;  **dbms\_lock.sleep(15);**  update accounts  set balance=balance+500  where accid=7720;  commit;  end; | begin  update accounts  set balance=balance-800  where accid=7715;    update accounts  set balance=balance+800  where accid=7725;  commit;  end; |
|  | select \* from accounts; | select \* from accounts; |
|  | **Explain the results** | |

1. Rerun the Account script:

|  |  |
| --- | --- |
| accid | balance |
| 7715 | 7000 |
| 7720 | 5100 |
| 7725 | 20 |
| 7730 | 49 |

Open two session (Ctrl + Shift + N) and do the following things.

SESSION 1: Transfer money ($5000) from account 7715 to 7720

SESSION 2: Transfer money ($5000) from account 7715 to 7725

|  |  |
| --- | --- |
| acc 7715: -5000$ |  |
|  | Acc 7715: -5000$ |
| Acc 7720: +5000$ | Acc 7725: +5000$ |

|  |  |  |
| --- | --- | --- |
| **T** | **Session 1** | **Session 2** |
|  | select \* from accounts; | select \* from accounts; |
|  | begin  update accounts  set balance=balance-5000  where accid=7715;  **dbms\_lock.sleep(15);**  update accounts  set balance=balance+5000  where accid=7720;  commit;  end; | begin  update accounts  set balance=balance-5000  where accid=7715;    update accounts  set balance=balance+5000  where accid=7725;  commit;  end; |
|  | select \* from accounts; | select \* from accounts; |
|  | **Explain the results** | |

Rerun the Account script:

|  |  |
| --- | --- |
| accid | balance |
| 7715 | 7000 |
| 7720 | 5100 |
| 7725 | 20 |
| 7730 | 49 |

Open two session (Ctrl + Shift + N) and do the following things.

SESSION 1: Transfer money ($500) from account 7715 to 7720

SESSION 2: Transfer money ($300) from account 7720 to 7725

|  |  |
| --- | --- |
| acc 7715: -500$ |  |
|  | Acc 7720: -300$ |
| Acc 7720: +500$ | Acc 7725: +300$ |

|  |  |  |
| --- | --- | --- |
| **T** | **Session 1** | **Session 2** |
|  | select \* from accounts; | select \* from accounts; |
|  | begin  update accounts  set balance=balance-500  where accid=7715;  **dbms\_lock.sleep(10);**  update accounts  set balance=balance+500  where accid=7720;  commit;  end; | begin  update accounts  set balance=balance-300  where accid=7720;  update accounts  set balance=balance+300  where accid=7725;  commit;  end; |
|  | select \* from accounts; | select \* from accounts; |
|  | **Explain the results** | |

1. Rerun the Account script

|  |  |
| --- | --- |
| Accid | balance |
| 7715 | 7000 |
| 7720 | 5100 |
| 7725 | 20 |
| 7730 | 49 |

Open two session (Ctrl + Shift + N) and do the following things.

Transfer money ($2000) from account 7715 to 7720

Transfer money ($1000) from account 7720 to 7715

|  |  |
| --- | --- |
| acc 7715: -2000$ |  |
|  | Acc 7720: -1000$ |
| Acc 7720: +2000$ | Acc 7715: +1000$ |

|  |  |  |
| --- | --- | --- |
| **T** | **Session 1** | **Session 2** |
|  | select \* from accounts; | select \* from accounts; |
|  | begin  update accounts  set balance=balance-2000  where accid=7715;  **dbms\_lock.sleep(10);**  update accounts  set balance=balance+2000  where accid=7720;  commit;  end; | begin  update accounts  set balance=balance-1000  where accid=7720;  update accounts  set balance=balance+1000  where accid=7715;  commit;  end; |
|  | select \* from accounts; | select \* from accounts; |
|  | **Explain the results** | |