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| 13. SQL ASSIGNMENTS-TRIGGERS |
| This assignment is related to TRIGGERS in SQL SERVER |

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**Assignment1 - BankAccounts Assignment**

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| 1. **Create a Table BankAccounts in SQL SERVER.**

**CREATE A TABLE FOR BANKACCOUNT**

|  |  |  |
| --- | --- | --- |
| COLUMN\_NAME | DATATYPE | CONSTRAINT |
| ACCOUNTNO | INT | PRIMARY KEY, IDENTITY(1,1) |
| ACCOUNTNAME | VARCHAR(100) |  |
| BALANCE | FLOAT |  |
|  |  |  |

* Part A

WRITE A TRIGGER TO MAINTAIN THE ACCOUNT HISTORY IN ACCOUNT\_HISTORY TABLEWhen there is any update into the Balance of the BankAccount table, it should be maintained in the history table like thisTABLENAME : ACCOUNTHISTORY

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| ACCOUNTNO | TRANSACTIONTYPE | AMT | LASTBALANCE | TRANSACTIONDATE |
| 101 | DEBT | 100 | 6000 | 08/05/2020 |
| 101 | CREDIT | 500 | 6500 | 09/05/2020 |

* Part B

WHENEVER THERE IS AN UPDATE INTO THE BANKACCOUNT TABLE, IT SHOULD ALSO GENERATE ALSO GENERATE THE LAST 5 TRANSACTION DONE INTO THE ACCOUNT NO |

**Assignment2 - Employee Assignment**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
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| 1. **Create a Table EMPLOYEE in SQL SERVER.**

**CREATE A TABLE FOR EMPLOYEE**

|  |  |  |
| --- | --- | --- |
| COLUMN\_NAME | DATATYPE | CONSTRAINT |
| EMPNO | INT | PRIMARY KEY, IDENTITY(1,1) |
| EMPNAME | VARCHAR(100) |  |
| SALARY | FLOAT |  |
| TAX | FLOAT |  |
| Designation | VARCHAR(100) |  |

* Part A

WRITE A TRIGGER TO MAINTAIN THE updates IN EMPLOYEE TABLEWhen there is any update in the **EMPLOYEE** table, the previous value should be maintained in the history table like thisTABLENAME : **EMPLOYEE\_**HISTORY

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| EMPNO | EMPNAME | SALARY | TAX | DESIGNATION | UPDATED\_DATETIME | UPDATED\_BY |
|  |  |  |  |  | Datetime at which the data have been updated | UserName who have updated the record |

* Part B

WRITE A TRIGGER TO MAINTAIN THE deleted records details IN **EMPLOYEE\_**DELETE TABLEWhen there is any delete in the **EMPLOYEE** table, the deleted record should be maintained in the **EMPLOYEE\_**DELETE table like this TABLENAME : **EMPLOYEE\_**DELETE

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| EMPNO | EMPNAME | SALARY | TAX | DESIGNATION | DELETED\_DATETIME | DELETED\_BY |
|  |  |  |  |  | Datetime at which the data have been deleted | UserName who have DELETED the record |

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**Assignment3 - StudentAssignment**

**CREATE A STUDENT TABLE SIMILAR TO THIS**

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
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| --- | --- | --- | --- | --- | --- | --- | --- |
| **ROLLNO** | **NAME** | **ENGMARKS** | **SCNMARKS** | **MATHMARKS** | **TOTALMARKS** | **PERCENTAGE** | **GRADE** |
| **IDENTITY(1,1)** |  |  |  |  |  |  |  |

**WRITE A TRIGGER TO CALCULATE THE VALUES OF TOTALMARKS, PERCENTAGE AND GRADE AND INSERT INTO THE STUDENT TABLE.****THE USER WILL INSERT NAME,ENGMARKS,SCNMARKS,MATHMARKS.****THE TOTALMARKS,PERCENTAGE AND GRADE SHOULD BE CALCULATED THROUGH TRIGGER AND INSERT INTO THE TABLE.** |