

Bài la03 cá nhân:

a), b)

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TEST_COLUMN_AES....A315\Admin (53))* Lab03 - self - init...CO-A315\Admin (58))
1  /*
2  MASV: 47.01.104.045
3  HO TEN: PHAN VU TUAN ANH
4  LAB: 03
5  NGÀY: 01/04/2024
6  */
7
8  USE master
9  GO
10
11 DROP DATABASE EMPLOYEE
12 GO
13
14 CREATE DATABASE EMPLOYEE
15 GO
16
17 USE EMPLOYEE
18 GO
19
20 CREATE TABLE Employee
21 (
22     EMPLOYEEID NVARCHAR(20) NOT NULL,
23     NAME NVARCHAR(100) NOT NULL,
24     EMAIL VARCHAR(20),
25     SALARY VARBINARY(MAX),
26     USERNAME NVARCHAR(100) NOT NULL,
27     PASSWORD VARBINARY(MAX) NOT NULL
28     CONSTRAINT PK_Employee PRIMARY KEY (EMPLOYEEID)
29 )
30
31 CREATE TABLE Class
32 (
33     CLASSID NVARCHAR(20) NOT NULL,
34     CLASSNAME NVARCHAR(100) NOT NULL,
35     EMPLOYEEID NVARCHAR(20),
36     CONSTRAINT PK_Class PRIMARY KEY (CLASSID),
37     CONSTRAINT FK_Employee FOREIGN KEY (EMPLOYEEID) REFERENCES Employee (EMPLOYEEID)
38 )
39
40 CREATE TABLE Student
41 (
42     STUDENTID NVARCHAR(20) NOT NULL,
43     NAME NVARCHAR(100) NOT NULL,
44     BDAY DATE,
45     ADDRESS NVARCHAR(200),
46     CLASSID NVARCHAR(20) NOT NULL,
47     USERNAME NVARCHAR(100) NOT NULL,
48     PASSWORD VARBINARY(MAX) NOT NULL
49     CONSTRAINT PK_Student PRIMARY KEY (STUDENTID),
50     CONSTRAINT FK_Class FOREIGN KEY (CLASSID) REFERENCES Class (CLASSID)
51 )
52 GO
```

c)

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Lab03 - self - pro...CO-A315\Admin (60))  X Lab03 - self - pop...O-A315\Admin (59))
1  /*
2  MASV: 47.01.104.045
3  HO TEN: PHAN VU TUAN ANH
4  LAB: 03
5  NGAY: 01/04/2024
6  */
7  USE EMPLOYEE
8  GO
9  CREATE PROCEDURE INSERT_STUDENT (
25  GO
26
27  CREATE PROCEDURE INSERT_EMPLOYEE (
28      @EMPLOYEEID NVARCHAR(20),
29      @NAME        NVARCHAR(100),
30      @EMAIL       VARCHAR(20),
31      @SALARY      NVARCHAR(100), -- Will be inserted as text
32      @USERNAME    NVARCHAR(100),
33      @PASSWORD    NVARCHAR(100) -- Will be inserted as text
34  )
35  AS
36  BEGIN
37      DECLARE @Enc_SALARY VARBINARY(MAX)
38      DECLARE @PASS VARBINARY(MAX)
39
40      -- Encrypting salary
41      OPEN SYMMETRIC KEY StudentID_Key
42      DECRYPTION BY CERTIFICATE StuID
43      -- SET @Enc_SALARY = ENCRYPTBYKEY(KEY_GUID('StudentID_Key'), CONVERT(VARBINARY(MAX), @SALARY))
44
45      -- SET @Enc_SALARY = CAST(ENCRYPTBYKEY(KEY_GUID('StudentID_Key'), @SALARY) AS VARBINARY(MAX))
46      -- SET @Enc_SALARY = CAST(@SALARY AS VARBINARY(MAX))
47      -- SET @PASS = CAST(HASHBYTES('SHA1', @PASSWORD) AS VARBINARY(MAX))
48
49      SET @Enc_SALARY = CONVERT(VARBINARY(MAX), ENCRYPTBYKEY(KEY_GUID('StudentID_Key'), @SALARY))
50      SET @PASS = CONVERT(VARBINARY(MAX), HASHBYTES('SHA1', @PASSWORD))
51
52      INSERT INTO Employee (EMPLOYEEID, NAME, EMAIL, SALARY, USERNAME, PASSWORD, Salary_Encrypted)
53      VALUES ( @EMPLOYEEID, @NAME, @EMAIL, @Enc_SALARY, @USERNAME, @PASS, @Enc_SALARY )
54
55      CLOSE SYMMETRIC KEY StudentID_Key
56  END
57  GO
58
59
60
61  CREATE PROCEDURE GET_EMPLOYEE_DETAILS
62  AS
63  BEGIN
64      -- Encrypting salary
65      OPEN SYMMETRIC KEY StudentID_Key
66      DECRYPTION BY CERTIFICATE StuID
67      -- EMPLOYEEID, NAME, EMAIL, Salary_Encrypted,
68      SELECT EMPLOYEEID, NAME, EMAIL, Salary_Encrypted, CONVERT(NVARCHAR(MAX), DECRYPTBYKEY
        (Salary_Encrypted, KEY_ID('StudentID_Key'))) AS Salary_Decrypted FROM Employee
69      CLOSE SYMMETRIC KEY StudentID_Key
70
71  END
72  GO
```

d)