

CSE 4508 – RDBMS Programming Lab

Lab 7

1. Write a block of PL/SQL code which checks whether the current year is a leap year and prints “Yes” or “No”. After this, it should print the immediate previous leap year, and the immediate next one. [Do NOT simply hardcode and print 2016 and 2020]
2. Write a PL/SQL function called **times_table** which takes two inputs: **n**, which indicates how many times tables you have to print, and **iter** which indicates how far along the times table you have to go. Then write a block of code to call this function, taking inputs of **n** and **iter** from the user. The example output for **n=2** and **iter=10** is shown:

```
1 Table
```

```
-----
```

```
1*1=1
```

```
1*2=2
```

```
1*3=3
```

```
1*4=4
```

```
1*5=5
```

```
1*6=6
```

```
1*7=7
```

```
1*8=8
```

```
1*9=9
```

```
1*10=10
```

```
2 Table
```

```
-----
```

```
2*1=2
```

```
2*2=4
```

```
2*3=6
```

```
2*4=8
```

```
2*5=10
```

```
2*6=12
```

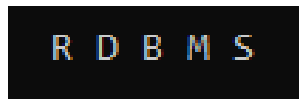
```
2*7=14
```

```
2*8=16
```

```
2*9=18
```

```
2*10=20
```

3. A hacker stumbles onto a database table containing only two columns: **Username (varchar2)** and **Password_Length (number)**. Password_Length only contains a number, such as 7 or 8, denoting how long the password of that username is. Write a block of PL/SQL, using a function if necessary, which will first find the highest Password_Length from the table. It will then find out how many permutations the hacker needs to go through to crack that password. (The password only contains letters of the alphabet. You therefore have $26 \times 2 = 52$ possibilities for each symbol of the password. However, no character can be repeated. So, the correct answer, for a password of length 4, is: $52 \times 51 \times 50 \times 49 = 6497400$)
4. Write a PL/SQL procedure that takes as input a string. The program will achieve two things:
- Make a new string with a space added between every character of the input string. For instance, if the input string is **RDBMS**, the output will be:



R D B M S

- Check if the original input string was a palindrome. Print "Yes" or "No" accordingly. [Hint for both: substr]