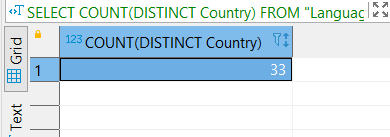
**Name : Kartikeya Sharma**

**Matriculation Number : 11018760**

**1.**

**SELECT** **COUNT**(**DISTINCT** Country) **FROM** "Language" l

**WHERE** Percentage = '100'



2.

**SELECT** c.Name , m.Elevation ,moi.Island **FROM** MountainOnIsland moi

**INNER** **JOIN** Mountain m

**ON** m.Name = moi.Mountain

**INNER** **JOIN** geo\_Mountain gm

**ON** gm.Mountain = m.Name

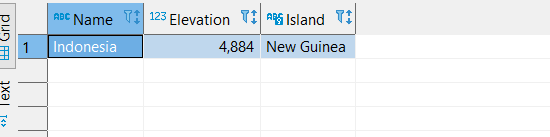
**INNER** **JOIN** Country c

**ON** gm.Country = c.Code

**WHERE** (m.Elevation) **IN** (**SELECT** **MAX**(Elevation) **FROM** Mountain m2

**INNER** **JOIN** MountainOnIsland moi2

**ON** moi2.Mountain = m2.Name)



3.

**SELECT** country1name ,**SUM**(COUNTRY1SUM) **FROM** (

**SELECT** c.Name **AS** country1name , **SUM**(b."Length") **AS** COUNTRY1SUM **FROM** Country c

**INNER** **JOIN** borders b

**ON** c.Code = b.Country1

----AND c.Code = b.Country2

**WHERE** c.Code = 'D'

**GROUP** **BY** 1

**UNION** **ALL**

**SELECT** c1.Name **AS** country1name , **SUM**(b1."Length") **AS** COUNTRY1SUM **FROM** Country c1

**INNER** **JOIN** borders b1

**ON** c1.Code = b1.Country2

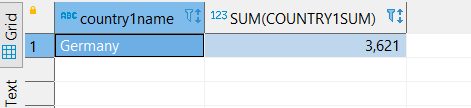
---AND c.Code = b.Country2

**WHERE** c1.Code = 'D'

**GROUP** **BY** 1

)

**GROUP** **BY** 1



4.

**WITH** my\_cte2 **AS** (

**WITH** my\_cte **AS** (

**SELECT** c.Code **AS** CODE1 , c.Name **AS** CNAME **FROM** borders b

**INNER** **JOIN** Country c

**ON** b.Country2 = c.Code

**WHERE** Country1 = 'D'

**UNION** **ALL**

**SELECT** c1.Code **AS** CODE1 , c1.Name **AS** CNAME **FROM** borders b1

**INNER** **JOIN** Country c1

**ON** b1.Country1 = c1.Code

**WHERE** Country2 = 'D'

)

**SELECT** CODE2 , CNAME2 **FROM** (

**SELECT** c2.Code **AS** CODE2 , c2.Name **AS** CNAME2 **FROM** my\_cte T1

**INNER** **JOIN** borders b2

**ON** b2.Country1 = T1.CODE1

**INNER** **JOIN** Country c2

**ON** c2.Code = b2.Country2

---WHERE b2.Country1 = 'F'

**UNION** **ALL**

**SELECT** c3.Code **AS** CODE2 , c3.Name **AS** CNAME2 **FROM** my\_cte T1

**INNER** **JOIN** borders b2

**ON** b2.Country2 = T1.CODE1

**INNER** **JOIN** Country c3

**ON** c3.Code = b2.Country1

---WHERE b2.Country2 = 'F'

) T3

**WHERE** T3.CNAME2 **NOT** **IN** (**SELECT** c.Name **AS** CNAME **FROM** borders b

**INNER** **JOIN** Country c

**ON** b.Country2 = c.Code

**WHERE** Country1 = 'D'

**UNION** **ALL**

**SELECT** c1.Name **AS** CNAME **FROM** borders b1

**INNER** **JOIN** Country c1

**ON** b1.Country1 = c1.Code

**WHERE** Country2 = 'D'

)

**AND** T3.CODE2 **NOT** **IN** (**SELECT** Country1 **FROM** borders b

**INNER** **JOIN** Country c

**ON** b.Country2 = c.Code

**WHERE** Country1 = 'D'

**UNION** **ALL**

**SELECT** Country2 **FROM** borders b1

**INNER** **JOIN** Country c1

**ON** b1.Country1 = c1.Code

**WHERE** Country2 = 'D'

)

)

**SELECT** **COUNT**(**DISTINCT** CODE3) **FROM** (

**SELECT** c2.Code **AS** CODE3 , c2.Name **AS** CNAME3 **FROM** my\_cte2 T1

**INNER** **JOIN** borders b2

**ON** b2.Country1 = T1.CODE2

**INNER** **JOIN** Country c2

**ON** c2.Code = b2.Country2

---WHERE b2.Country1 = 'E'

**UNION** **ALL**

**SELECT** c3.Code **AS** CODE3 , c3.Name **AS** CNAME3 **FROM** my\_cte2 T1

**INNER** **JOIN** borders b2

**ON** b2.Country2 = T1.CODE2

**INNER** **JOIN** Country c3

**ON** c3.Code = b2.Country1

---WHERE b2.Country2 = 'E'

) T5

**WHERE** T5.CNAME3 **NOT** **IN** (**WITH** my\_cte **AS** (

**SELECT** c.Code **AS** CODE1 , c.Name **AS** CNAME **FROM** borders b

**INNER** **JOIN** Country c

**ON** b.Country2 = c.Code

**WHERE** Country1 = 'D'

**UNION** **ALL**

**SELECT** c1.Code **AS** CODE1 , c1.Name **AS** CNAME **FROM** borders b1

**INNER** **JOIN** Country c1

**ON** b1.Country1 = c1.Code

**WHERE** Country2 = 'D'

)

**SELECT** CNAME2 **FROM** (

**SELECT** c2.Code **AS** CODE2 , c2.Name **AS** CNAME2 **FROM** my\_cte T1

**INNER** **JOIN** borders b2

**ON** b2.Country1 = T1.CODE1

**INNER** **JOIN** Country c2

**ON** c2.Code = b2.Country2

---WHERE b2.Country1 = 'F'

**UNION** **ALL**

**SELECT** c3.Code **AS** CODE2 , c3.Name **AS** CNAME2 **FROM** my\_cte T1

**INNER** **JOIN** borders b2

**ON** b2.Country2 = T1.CODE1

**INNER** **JOIN** Country c3

**ON** c3.Code = b2.Country1

---WHERE b2.Country2 = 'F'

) T3

**WHERE** T3.CNAME2 **NOT** **IN** (**SELECT** c.Name **AS** CNAME **FROM** borders b

**INNER** **JOIN** Country c

**ON** b.Country2 = c.Code

**WHERE** Country1 = 'D'

**UNION** **ALL**

**SELECT** c1.Name **AS** CNAME **FROM** borders b1

**INNER** **JOIN** Country c1

**ON** b1.Country1 = c1.Code

**WHERE** Country2 = 'D'

)

**AND** T3.CODE2 **NOT** **IN** (**SELECT** Country1 **FROM** borders b

**INNER** **JOIN** Country c

**ON** b.Country2 = c.Code

**WHERE** Country1 = 'D'

**UNION** **ALL**

**SELECT** Country2 **FROM** borders b1

**INNER** **JOIN** Country c1

**ON** b1.Country1 = c1.Code

**WHERE** Country2 = 'D'

))

**AND** T5.CODE3 **NOT** **IN** (**SELECT** Country2 **FROM** borders b

**INNER** **JOIN** Country c

**ON** b.Country2 = c.Code

**WHERE** Country1 = 'D'

**UNION** **ALL**

**SELECT** Country1 **FROM** borders b1

**INNER** **JOIN** Country c1

**ON** b1.Country1 = c1.Code

**WHERE** Country2 = 'D')

