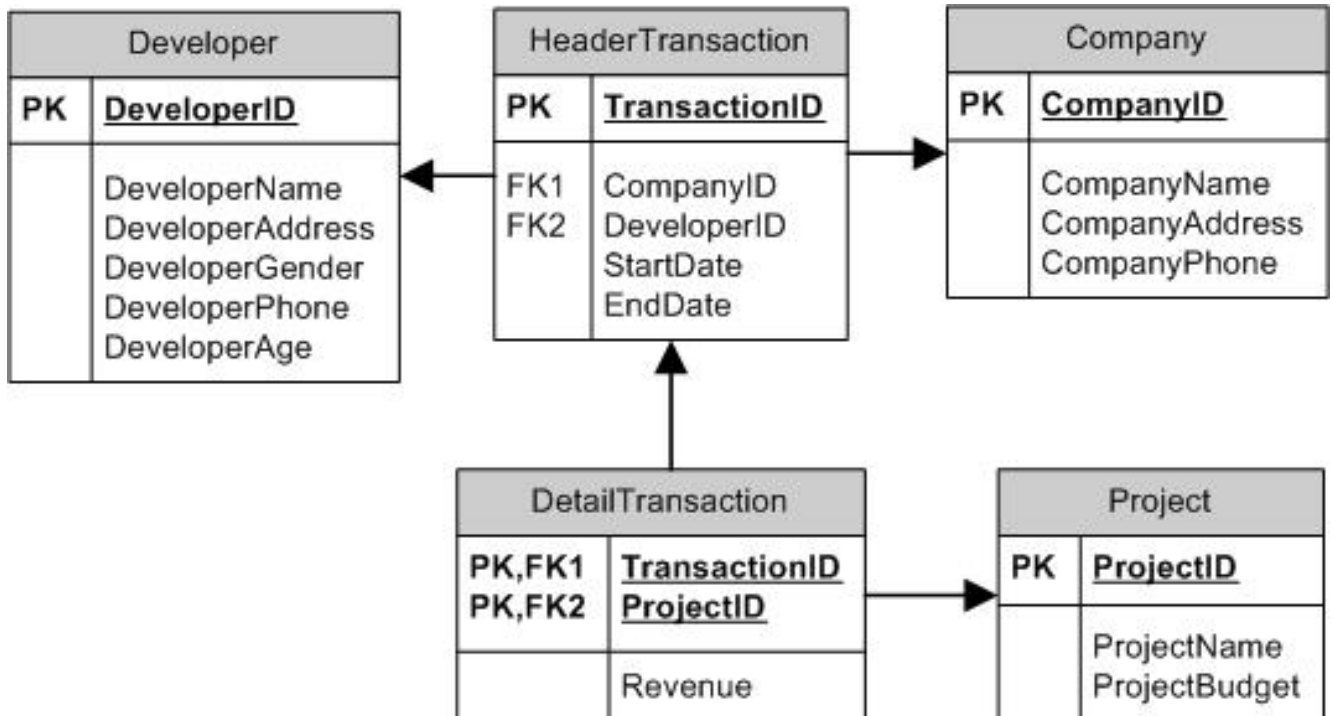| Ujian Akhir Praktikum - Semester Ganjil 2019/2020			
Practicum Final Exam - Odd Semester Year 2019/2020			
Matakuliah *Subject*	**ISYS6169 - Database Systems**		
Kelas *Class*	**: SD01**	**Tanggal** *Date* : **14-01-2020**	BINUS UNIVERSITY Software Laboratory Center
Dosen *Lecturer*	**: D5386 - Edi Purnomo Putra, S.Kom., M.MSI**	**Waktu** *Time* : **15.20 - 17.00**	

PERATURAN UJIAN:

Exam Regulations:

➢ Mahasiswa tidak diperbolehkan membuka **BUKU** atau catatan apapun
  Student is not allowed to open or use any books or notes

➢ Mahasiswa tidak diperbolehkan menggunakan disket/flash disk/tempat penyimpanan data apapun di dalam ruangan ujian
  Student is not allowed to use disc/flash disc/or any other storage devices in exam room

➢ Mahasiswa tidak diperbolehkan berdiskusi dengan peserta ujian lainnya
  Student is not allowed to discuss with other exam participants

➢ Asisten **BERHAK** memberi nilai 0 **(NOL)** bagi peserta ujian yang melakukan segala bentuk kecurangan
  Assistant is able to give 0 (ZERO) score for exam participant who does any cheating actions

➢ Kumpulkan jawaban dan soal tepat pada waktunya
  Submit the case and answer on time

➢ Bila Anda tidak membaca peraturan ini, maka Anda dianggap telah membaca dan menyetujuinya
  If you have missed to read these regulations, so you are considered to have read and agreed on it

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PERHATIAN!

Attention!

➢ Kerjakan sesuai dengan soal
  Work in accordance with the exam case

➢ Bagi yang mengerjakan tidak sesuai dengan soal akan diberikan sanksi sebagai berikut:
  For those who do not work in accordance with the exam case will be punished as follows:

  • **Jika ada** penilaian logika, maka penilaian logika adalah **NOL (0)**
    If there is** logic marking, it will be marked as **ZERO (0)

  • Untuk penilaian yang lain (selain logika) akan **dikalikan** setengah dari nilai yang diperoleh
    *Another marking (beside logic) will be **multiplied** by half the value obtained*

Tabel Relasional
Relational Table

Game Company

Soal
Case

1. Display CompanyID (obtained from CompanyID by replacing 'C' with 'Company '), CompanyName, CompanyAddress (obtained by combining CompanyAddress that followed by 'No.' and the last digit of CompanyID), StartDate and EndDate for every company which name contains 'Ironworks'.

   (**replace**, **right**, **like**)

	CompanyID	CompanyName	CompanyAddress	StartDate	EndDate
1	Company 0004	Ironworks Corp	Risus Street No.4	2015-04-23	2015-09-07

2. Display Transaction Code (obtained by adding 'TR-' in front of the last digit of TransactionID), ProjectID, ProjectName, Revenue, ProjectBudget, and Profit (obtained from subtraction between Revenue and ProjectBudget) for every transaction which revenue is between 100000000 and 200000000.

   (**right**, **join**, **between**)

	Transaction Code	ProjectID	ProjectName	Revenue	ProjectBudget	Profit
1	TR-3	P0003	Full Solid Door	200000000	17400000	182600000
2	TR-7	P0004	Eastern Windshield	132000000	23200000	108800000
3	TR-2	P0008	Swift Eagle	146000000	29300000	116700000
4	TR-8	P0003	Full Solid Door	158500000	17400000	141100000

3. Display CompanyID, DeveloperID, and Tax Revenue (obtained from average of 10% of Revenue with integer format) for every transaction which started between 1st and 4th day.

   (**cast**, **avg**, **join**, **day**, **between**, **group by**)

	CompanyID	DeveloperID	Tax Revenue
1	C0001	D0002	5000000
2	C0007	D0008	5150000

4. Display Developer Lastname (obtained from developer's last name), DeveloperGender, ProjectName, Budget (obtained from ProjectBudget), Total Budget (obtained from amount of ProjectBudget), and Developer Count For Specific Project (obtained from total of transaction that had been done by developer) for every project which had been developed by male developer and the project's name is 'Swift Eagle'. Then, **combined** with Developer Lastname (obtained from developer's last name), DeveloperGender, ProjectName, Budget (obtained from ProjectBudget), Total Budget (obtained from amount of ProjectBudget), and Developer Count For Specific Project (obtained from total of transaction that had been done by developer) for every project which had been developed by female developer and the project's name is 'Eastern Windshield'.

   (**substring**, **charindex**, **reverse**, **sum**, **count**, **group by**, **union**)

	Developer Lastname	DeveloperGender	Project Name	Budget	Total Budget	Developer Count For Specific Project
1	Phelps	Male	Swift Eagle	29300000	58600000	2
2	Rasmussen	Female	Eastern Windshield	23200000	23200000	1

5. Display ProjectID, ProjectName (obtained from ProjectName in uppercase format), EndDate (obtained from EndDate in 'Mon dd, yyyy' format) for every project which want to be built by the company which address started with 'Nullam' and revenue is less than 600000000.

   (**upper**, **convert**, **exists**, **like**)

	ProjectID	ProjectName	EndDate
1	P0008	SWIFT EAGLE	Sep 12, 2015

6. Display DeveloperName, Revenue, Day of Year (obtained from day of year of StartDate), and Development Year (obtained from the difference between StartDate and EndDate and ended with the word ' Year(s)') for every project which budget is more than the average of all budgets, Development Year is more than 0 and revenue is less than 500000000.

   (**datename**, **dayofyear**, **convert**, **datediff**, **year**, **alias subquery**, **avg**)

	DeveloperName	Revenue	Day of Year	Development Year
1	Neville Rasmussen	250000000	60	1 Year(s)
2	Daquan Reese	400000000	170	1 Year(s)
3	Colt Evans	487000000	88	2 Year(s)

7. Create a view named 'View Developer' to display DeveloperID, DeveloperName, and DeveloperAddress for every transaction which started between April and July.

   (**create view**, **month, between**)

	DeveloperID	DeveloperName	DeveloperAddress
1	D0003	Daquan Reese	Cotton Street
2	D0004	Finn Reeves	Burning Street
3	D0005	Bert Nash	Broad Street
4	D0008	Vladimir Oneal	Fallen Street

8. Create a view named 'Revenue per Month' to display DeveloperName, DeveloperGender, and Revenue per Month (obtained by adding 'Rp. ' in front of amount of Revenue that divided by 12) for every transaction which ended in 2015 and developer's address is in 'Colonial Street'.

   (**create view**, **cast**, **sum**, **year**, **group by**)

	DeveloperName	DeveloperGender	Revenue per Month
1	Cruz Tyler	Male	Rp. 165583333

9. Add a column named 'DeveloperEmail' on **Developer** table with varchar(20) data type and add a constraint to check that the column must be between 5 and 30 characters.

   (**alter table**, **add**, **add constraint**, **len, between**)

	DeveloperID	DeveloperName	DeveloperAddress	DeveloperGender	DeveloperPhone	DeveloperAge	DeveloperEmail
1	D0001	Cruz Tyler	Colonial Street	Male	643728374354	31	NULL
2	D0002	Neville Rasmussen	Crystal Street	Female	238462343847	23	NULL
3	D0003	Daquan Reese	Cotton Street	Female	384723498723	19	NULL
4	D0004	Finn Reeves	Burning Street	Male	236748324384	21	NULL
5	D0005	Bert Nash	Broad Street	Male	928374659304	22	NULL
6	D0006	Vincent Hields	Clear Street	Female	346328437346	24	NULL
7	D0007	Colt Evans	Emerald Street	Male	342341239213	26	NULL
8	D0008	Vladimir Oneal	Fallen Street	Male	234724364994	28	NULL
9	D0009	Walker Phelps	Golden Street	Male	123127384745	27	NULL
10	D0010	Jelani Lopez	Grand Street	Female	234238474635	20	NULL

10. Remove data on **Developer** table for every transaction which revenue is less than 200000000 and the transaction ended in 2015.

(**delete**, **year**)

Before deleted:

	DeveloperID	DeveloperName	DeveloperAddress	DeveloperGender	DeveloperPhone	DeveloperAge
1	D0001	Cruz Tyler	Colonial Street	Male	643728374354	31
2	D0002	Neville Rasmussen	Crystal Street	Female	238462343847	23
3	D0003	Daquan Reese	Cotton Street	Female	384723498723	19
4	D0004	Finn Reeves	Burning Street	Male	236748324384	21
5	D0005	Bert Nash	Broad Street	Male	928374659304	22
6	D0006	Vincent Hields	Clear Street	Female	346328437346	24
7	D0007	Colt Evans	Emerald Street	Male	342341239213	26
8	D0008	Vladimir Oneal	Fallen Street	Male	234724364994	28
9	D0009	Walker Phelps	Golden Street	Male	123127384745	27
10	D0010	Jelani Lopez	Grand Street	Female	234238474635	20

After deleted:

	DeveloperID	DeveloperName	DeveloperAddress	DeveloperGender	DeveloperPhone	DeveloperAge
1	D0001	Cruz Tyler	Colonial Street	Male	643728374354	31
2	D0002	Neville Rasmussen	Crystal Street	Female	238462343847	23
3	D0003	Daquan Reese	Cotton Street	Female	384723498723	19
4	D0006	Vincent Hields	Clear Street	Female	346328437346	24
5	D0007	Colt Evans	Emerald Street	Male	342341239213	26
6	D0008	Vladimir Oneal	Fallen Street	Male	234724364994	28
7	D0010	Jelani Lopez	Grand Street	Female	234238474635	20