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Project phase 2

In phase 1 I did not include table 'Build'
Here I m including Build table with Prodname, Prodversion, Compld.

```
] create table Product(  
  Prodname varchar(40) ,  
  Prodversion varchar(40) ,  
  S1 ENUM('ready','usable','not-ready') default 'not-ready',  
  CONSTRAINT p1 PRIMARY KEY(Prodname,Prodversion)  
-);
```

The following are the tables of

```
. create table Component(  
  Compld int ,  
  Compname varchar(1000),  
  Compversion varchar(3),  
  Proglang varchar(255),  
  Size varchar(255),  
  Status ENUM('ready','usable','not-ready') default 'not-ready',  
  OwnerId int,  
  constraint p2 primary key(Compld),  
  constraint c1 unique(Compld, Compname),  
  CONSTRAINT f1 foreign key ( OwnerId) References Person(Id)  
)ENGINE=INNODB;
```

```
create table Build(  
  Prodname varchar(40),  
  Prodversion varchar(40),  
  Compld int,  
  constraint pk5 primary key(Prodname, Prodversion,Compld),  
  constraint fk1 foreign key (Prodname, Prodversion) references Product(Prodname,Prodversion  
  constraint fk3 foreign key (Compld) references Component(Compld)  
)ENGINE=INNODB;
```

```
create table Inspection(  
  Inspdate Date NOT NULL,  
  Inspscore int,  
  Textualdescr varchar(4000),  
  Inspld int,  
  Compld int,  
  constraint pk2 primary key(Inspdate),  
  Constraint f2 foreign key ( Inspld) References Person(Id),  
  Constraint f3 foreign key ( Compld) References Component(Compld)  
);
```

```

Create table Person(
  Id int not null,
  Name varchar(60),
  seniority enum('newbie','junior','senior'),
  ManagerId int,
  hiredate date,
  constraint pk1 primary key(Id),
  constraint f4 foreign key (ManagerId) references Person(Id)
)ENGINE=INNODB;

```

```

• insert into Person(Id, Name, hiredate, ManagerId)
  values (10100, 'Employee-1', '1984-11-08', null);
• insert into Person(Id, Name, hiredate, ManagerId)
  values (10200, 'Employee-2', '1994-11-08', 10100);
• insert into Person(Id, Name, hiredate, ManagerId)
  values (10300, 'Employee-3', '2004-11-08', 10200);
• insert into Person(Id, Name, hiredate, ManagerId)
  values (10400, 'Employee-4', '2008-11-01', 10200);
• insert into Person(Id, Name, hiredate, ManagerId)
  values (10500, 'Employee-5', '2015-11-01', 10400);
• insert into Person(Id, Name, hiredate, ManagerId)
  values (10600, 'Employee-6', '2015-11-01', 10400);
• insert into Person(Id, Name, hiredate, ManagerId)
  values (10700, 'Employee-7', '2016-11-01', 10400);
• insert into Person(Id, Name, hiredate, ManagerId)
  values (10800, 'Employee-8', '2017-11-01', 10200);

• insert into Component(CompId, CompName, Compversion, Proglang, Size, OwnerId)
  values (1, 'Keyboard Driver', 'K11', 'C', '1200', 10100);

• insert into Component(CompId, CompName, Compversion, Proglang, Size, OwnerId)
  values (2, 'Touch Screen Drive', 'T00', 'C++', '4000', 10100);

• insert into Component(CompId, CompName, Compversion, Proglang, Size, OwnerId)
  values (3, 'Dbase Interface', 'D00', 'C++', '2500', 10200);

• insert into Component(CompId, CompName, Compversion, Proglang, Size, OwnerId)
  values (4, 'Dbase Interface', 'D01', 'C++', '2500', 10300);

• insert into Component(CompId, CompName, Compversion, Proglang, Size, OwnerId)
  values (5, 'Chart generator', 'C11', 'java', '6500', 10200);
• insert into Component(CompId, CompName, Compversion, Proglang, Size, OwnerId)
  values (6, 'Pen driver', 'P01', 'C', '3575', 10700);
• insert into Component(CompId, CompName, Compversion, Proglang, Size, OwnerId)
  values (7, 'Math unit', 'A01', 'C', '5000', 10200);
• insert into Component(CompId, CompName, Compversion, Proglang, Size, OwnerId)
  values (8, 'Math unit', 'A02', 'Java', '5000', 10200);

• insert into Inspection(Inspdate, Inspscore, Textualdescr, InspId, CompId)
  values ('2010-02-14', 100, 'legacy code which is', 10100, 1)

✖ insert into Inspection(Inspdate, Inspscore, Textualdescr, InspId, CompId)
  values ('2017-06-01', 95, 'initial release ready', 10200, 2);
• insert into Inspection(Inspdate, Inspscore, Textualdescr, InspId, CompId)
  values ('2010-02-22', 55, 'too many hard coded parameters, the software must be more maintainable and configurable because we want to use this in
✖ insert into Inspection(Inspdate, Inspscore, Textualdescr, InspId, CompId)
  values ('2010-02-24', 78, 'improved, but only handles DB2 format', 10100, 3)
insert into Inspection(Inspdate, Inspscore, Textualdescr, InspId, CompId)
  values ('2010-02-26', 95, 'Okay, handles DB3 format', 10100, 3)
insert into Inspection(Inspdate, Inspscore, Textualdescr, InspId, CompId)
  values ('2010-02-28', 100, 'satisfied', 10100, 3)

```

`desc` Person

	Field	Type	Null	Key	Default	Extra	
►	Id	int(11)	NO	PRI	NULL		
	Name	varchar(60)	YES		NULL		
	seniority	enum('newbie','junior','senior')	YES		NULL		
	ManagerId	int(11)	YES	MUL	NULL		
	hiredate	date	YES		NULL		






`select * from Person|`

	Id	Name	seniority	ManagerId	hiredate
▶	10100	Employee-1	NULL	NULL	1984-11-08
	10200	Employee-2	NULL	10100	1994-11-08
	10300	Employee-3	NULL	10200	2004-11-08
	10400	Employee-4	NULL	10200	2008-11-01
	10500	Employee-5	NULL	10400	2015-11-01
	10600	Employee-6	NULL	10400	2015-11-01
	10700	Employee-7	NULL	10400	2016-11-01
	10800	Employee-8	NULL	10200	2017-11-01
	NULL	NULL	NULL	NULL	NULL

Desc Component

Result Grid		Filter Rows:	Q Search	Export:			
Field	Type	Null	Key	Default	Extra		
▶ Compld	int(11)	NO	PRI	NULL			
Compname	varchar(1000)	YES		NULL			
Compversion	varchar(3)	YES		NULL			
Proglang	varchar(255)	YES		NULL			
Size	varchar(255)	YES		NULL			
Status	enum('ready','usable','not-ready')	YES		not-ready			
OwnerId	int(11)	YES	MUL	NULL			

Select * from Component

Result Grid				Filter Rows:	<input type="text" value="Search"/>	Edit:			
	Compld	Compname	Compversion	Proglang	Size	Status	OwnerId		
▶	1	Keyboard Driver	K11	C	1200	not-ready	10100		
	2	Touch Screen Drive	T00	C++	4000	not-ready	10100		
	3	Dbase Interface	D00	C++	2500	not-ready	10200		
	4	Dbase Interface	D01	C++	2500	not-ready	10300		
	5	Chart generator	C11	java	6500	not-ready	10200		
	6	Pen driver	P01	C	3575	not-ready	10700		
	7	Math unit	A01	C	5000	not-ready	10200		
	8	Math unit	A02	Java	5000	not-ready	10200		
	NULL	NULL	NULL	NULL	NULL	NULL	NULL		

Desc Inspection

	Field	Type	Null	Key	Default	Extra	
▶	Inspdate	date	NO	PRI	NULL		
	Inspscore	int(11)	YES		NULL		
	Textualdescr	varchar(4000)	YES		NULL		
	InspId	int(11)	YES	MUL	NULL		
	Compld	int(11)	YES	MUL	NULL		

Select * from Inspection

	Inspdate	Inspscore	Textualdescr	Inspld	Compld
►	2010-02-14	100	legacy code which is	10100	1
	2010-02-22	55	too many hard coded parameters, the software...	10100	3
	2010-02-24	78	improved, but only handles DB2 format	10100	3
	2010-02-26	95	Okay, handles DB3 format	10100	3
	2010-02-28	100	satisfied	10100	3
	2011-05-01	100	Okay, ready for use	10200	4
	2014-06-10	90	almost ready	10100	7
	2014-06-15	70	Accuracy Problems!	10100	8
	2014-06-30	100	Okay problems fixed	10100	8
	2016-02-11	100	re-review for new employee to gain experience i...	10700	8
	2017-06-01	95	initial release ready	10200	2
	2017-07-15	80	Okay, ready for beta testing	10300	6
	NULL	NULL	NULL	NULL	NULL

	Field	Type	Null	Key	Default	Extra
►	Prodname	varchar(40)	NO	PRI	NULL	
	Prodversion	varchar(40)	NO	PRI	NULL	
	S1	enum('ready','usable','not-ready')	YES		not-ready	

	Prodname	Prodversion	S1
▶	Excel	2010	not-ready
	Excel	2015	not-ready
	Excel	2018beta	not-ready
	Excel	secret	not-ready
	NULL	NULL	NULL

Desc
Product

Field	Type	Null	Key	Default	Extra
Prodname	varchar(255)	NO	PRI	NULL	
Prodversion	varchar(255)	NO	PRI	NULL	
Compld	int(11)	NO	PRI	NULL	

Select *
Build

Prodname	Prodversion	Compld
Excel	2010	1
Excel	2015	1
Excel	2018beta	1
Excel	secret	1
Excel	2018beta	2
Excel	secret	2
Excel	2010	3
Excel	2015	4
Excel	2018beta	5
Excel	secret	5
Excel	2015	6
Excel	secret	8
NULL	NULL	NULL

from


```

delimiter //
create trigger trr1 before insert on Component
for each row
] begin
] if new.Proglang not in ('C','C++','C#','Java','PHP','Python','assembly') then
signal sqlstate '45000'
set message_text = "wrong language";
- end if;
end
-//
delimiter ;

```

```

delimiter //
create trigger t1 before insert on Product
for each row
] begin
] if new.s1 not in ('ready','usable','not-ready') then
signal sqlstate '45000'
set message_text = "wrong status";
- end if;
end
//
delimiter ;

delimiter //
create trigger t2 before insert on Inspection
for each row
] begin
] if length(new.Textualdescr) > 4000 then
signal sqlstate '45000'
set message_text = "Maximum allowed characters is 4000";
- end if;
end
-//
delimiter ;

drop trigger t3

delimiter //
create trigger t3 after insert on Person
for each row

] begin
if
] datediff(current_date(), new.hiredate) < 365 then
update Person set seniority = 'newbie' where Id = new.Id;
- end if;

if
] 365 <= datediff(current_date(), new.hiredate) <= 1825 then
update Person set seniority = 'Junior' where Id = new.Id;
- end if;
if
] datediff(current_date(), new.hiredate) > 1825 then
update Person set seniority = 'Senior' where Id = new.Id;
- end if;
end
-//

```

```

delimiter //
create trigger tr1 after insert on Inspection
for each row
begin

if new.Inspscore > 90 then
update Component set Status = "ready" where CompId = new.CompId;
elseif new.Inspscore >= 75 then
update Component set Status = "usable" where CompId = new.CompId;
else
update component set Status = "not-ready" where CompId = new.CompId;
end if;

end
//
delimiter ;

```

```

delimiter //
create trigger tg11 after insert on Build
for each row
begin
declare a int;
declare b int;
set a = (select Status from Component where Status like 'not-ready');
if a > 0 then

update Product set S1 = 'not-ready' where Prodname = new.Prodname and
Prodversion = new.Prodversion;

else
set b = (select Status from Component where Status like 'usable');
if b > 0 then
update Product set S1 = 'ready' where Prodname = new.Prodname and
Prodversion = new.Prodversion;
else
update Product set S1 = 'usable' where Prodname = new.Prodname and
Prodversion = new.Prodversion;

end if;
end if;
end
//
delimiter ;

```

After the Trigger Statement tr1 we have,
Component table as

Result Grid		Filter Rows:			Edit:		
Compld	Compname	Compversion	Proglang	Size	Status	OwnerId	
1	Keyboard Driver	K11	C	1200	ready	10100	
2	Touch Screen Drive	T00	C++	4000	ready	10100	
3	Dbase Interface	D00	C++	2500	ready	10200	
4	Dbase Interface	D01	C++	2500	ready	10300	
5	Chart generator	C11	java	6500	not-ready	10200	
6	Pen driver	P01	C	3575	usable	10700	
7	Math unit	A01	C	5000	usable	10200	
8	Math unit	A02	Java	5000	ready	10200	
NULL	NULL	NULL	NULL	NULL	NULL	NULL	