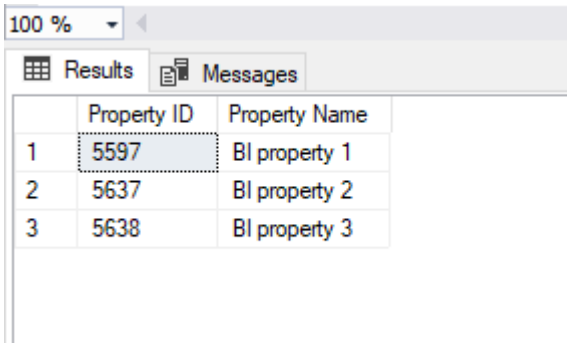
Property Analysis BI Developer - On-boarding Task Report

a. Display a list of all property names and their property id's for Owner Id: 1426.

```
declare @OwnerId int = 1426

SELECT p.Id AS 'Property ID',p.[Name] AS 'Property Name'
FROM dbo.OwnerProperty op INNER JOIN dbo.Property p ON op.PropertyId =p.Id
WHERE op.OwnerId=@OwnerId AND op.OwnershipStatusId =1 /*Owner*/
AND p.IsActive =1
```



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Results | Messages

	Property ID	Property Name
1	5597	BI property 1
2	5637	BI property 2
3	5638	BI property 3

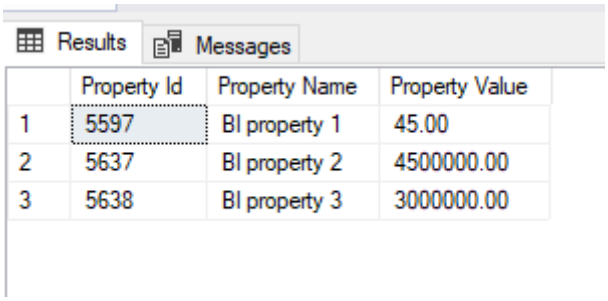
Assumptions & Consideration:

Considered active properties and also checked ownership status (Owner, Co-Owner, Property Manager) to be an Owner

b. Display the current home value for each property in question a).

```
DECLARE @OwnerId int = 1426

SELECT p.Id as [Property Id], p.[Name] as [Property Name],  pv.[Value] as
[Property Value]
FROM dbo.OwnerProperty op INNER JOIN dbo.Property p ON op.propertyid =p.id
INNER JOIN (
   SELECT v.*
   FROM dbo.PropertyHomeValue  v
   inner join (
          SELECT PropertyId, MAX([date]) as LatestDate
          FROM PropertyHomeValue
          WHERE IsActive=1
          GROUP BY PropertyId
   ) lp ON v.PropertyId = lp.PropertyId and v.date = lp.LatestDate
   WHERE v.HomeValueTypeId = 1 /*Current Home Value*/ and v.IsActive=1
) pv
ON pv.PropertyId=p.id
INNER JOIN dbo.PropertyHomeValueType pvt ON pvt.Id = pv.HomeValueTypeId
WHERE op.OwnerId = @OwnerId AND op.OwnershipStatusId =1 /*Owner*/ AND p.IsActive=1
ORDER BY p.Id
```



Results | Messages

	Property Id	Property Name	Property Value
1	5597	BI property 1	45.00
2	5637	BI property 2	4500000.00
3	5638	BI property 3	3000000.00

Assumptions & Consideration:

To get the current home value, consider the latest date for the property ID, checked active status of the property and Ownership status

c. For each property in question a), return the following:

a. Using rental payment amount, rental payment frequency, tenant start date and tenant end date to write a query that returns the sum of all payments from start date to end date.

```
-- With CTE using sum of PropertyRentalPayment.Amount
WITH ActualPayment(PropertyId, TenantId, FrequencyCode,[StartDate],[EndDate], [Sum of
all payments])
AS
(
	select tp.PropertyId, tp.TenantId, pf.Code as FrequencyCode,
tp.[StartDate],tp.[EndDate], sum(rp.Amount) [Sum of all payments]
	FROM [dbo].[TenantProperty] tp
	INNER JOIN dbo.[TenantPaymentFrequencies] pf on pf.Id = tp.PaymentFrequencyId
	INNER JOIN dbo.[PropertyRentalPayment] rp on  rp.PropertyId = tp.PropertyId
	GROUP BY tp.PropertyId, tp.TenantId, pf.Code, tp.[StartDate],tp.[EndDate]
),
ExpectedPayment(PropertyId, TenantId, [StartDate],[EndDate], [Expected Payments])
AS
(
   SELECT tp.PropertyId, tp.TenantId, tp.StartDate,tp.EndDate,
	CASE
	    WHEN (tp.PaymentFrequencyId = 1 /*Weekly*/) THEN
DATEDIFF(WEEK,tp.StartDate,tp.EndDate) * tp.PaymentAmount
	    WHEN (tp.PaymentFrequencyId = 2 /*Fortnightly*/) THEN
(DATEDIFF(WEEK,tp.StartDate,tp.EndDate)/2) * tp.PaymentAmount
		ELSE  (DATEDIFF(MONTH,tp.StartDate,tp.EndDate) +1) *
tp.PaymentAmount
	    END AS [Expected Payment]
	FROM dbo.TenantProperty tp INNER JOIN dbo.property p ON (tp.PropertyId =p.Id)
	INNER JOIN dbo.TenantPaymentFrequencies tpf ON (tpf.Id =tp.PaymentFrequencyId)
	INNER JOIN dbo.OwnerProperty op ON op.PropertyId=p.Id
)
SELECT p.Id AS 'Property ID', p.[Name] AS 'Property Name', tp.StartDate, tp.EndDate,
ap.[Sum of all payments], ep.[Expected Payments]
FROM dbo.OwnerProperty op INNER JOIN dbo.Property p ON op.propertyid =p.id
INNER JOIN [dbo].[TenantProperty] tp ON tp.PropertyId = p.Id
INNER JOIN ActualPayment ap ON (ap.TenantId = tp.TenantId AND ap.PropertyId =
tp.PropertyId)
INNER JOIN ExpectedPayment ep ON (ep.TenantId = tp.TenantId AND ep.PropertyId =
tp.PropertyId)
WHERE op.OwnerId=1426 AND op.OwnershipStatusId =1 /*Owner*/
AND p.IsActive =1
ORDER BY  p.Id, p.[Name], tp.[TenantId]

GO
```

Results | Messages

	Property ID	Property Name	StartDate	EndDate	Sum of all payments	Expected Payments
1	5597	BI property 1	2018-01-01 00:00:00.000	2018-12-31 00:00:00.000	300.00	15600.00
2	5637	BI property 2	2018-01-01 00:00:00.000	2018-12-31 00:00:00.000	400.00	10400.00
3	5638	BI property 3	2018-01-01 13:28:00.000	2018-12-31 13:28:00.000	48.00	12000.00

Assumptions & Consideration:

- Sum of all payments is taken from Property Rental Property.
- Amount field, Expected payment is calculated using TenantProperty.PaymentAmount field.
- Checked active status and ownership status

Without CTE (using TenantProperty.PaymentAmount)

```
SELECT tp.PropertyId,p.[Name],tpf.[Name],tp.StartDate,tp.EndDate,tp.PaymentAmount,
       CASE
           WHEN (tp.PaymentFrequencyId = 1 /*Weekly*/) THEN
DATEDIFF(WEEK,tp.StartDate,tp.EndDate) * tp.PaymentAmount
           WHEN (tp.PaymentFrequencyId = 2 /*Fortnightly*/) THEN
(DATEDIFF(WEEK,tp.StartDate,tp.EndDate)/2) * tp.PaymentAmount
                    ELSE  (DATEDIFF(MONTH,tp.StartDate,tp.EndDate) +1) *
tp.PaymentAmount
             END AS 'Expected Payment'

FROM dbo.TenantProperty tp INNER JOIN dbo.property p ON (tp.PropertyId =p.Id)
INNER JOIN dbo.TenantPaymentFrequencies tpf ON (tpf.Id =tp.PaymentFrequencyId)
INNER JOIN dbo.OwnerProperty op ON op.PropertyId=p.Id
WHERE  op.OwnerId = 1426 and op.OwnershipStatusId =1 /*Owner*/ AND p.IsActive =1


GO
```

Results | Messages

	PropertyId	Name	Name	StartDate	EndDate	PaymentAmount	Expected Payment
1	5597	BI property 1	Weekly	2018-01-01 00:00:00.000	2018-12-31 00:00:00.000	300.00	15600.00
2	5637	BI property 2	Fortnightly	2018-01-01 00:00:00.000	2018-12-31 00:00:00.000	400.00	10400.00
3	5638	BI property 3	Monthly	2018-01-01 13:28:00.000	2018-12-31 13:28:00.000	1000.00	12000.00

Assumptions & Consideration:

- Sum of payment is calculated using from TenantProperty. PaymentAmount field

With CTE Above (using TenantProperty.PaymentAmount)

```
WITH ActualPayment(PropertyId, TenantId, [StartDate],[EndDate], [PaymentFrequencyId],
[PaymentAmount], [Expected Payment])
AS
(
	SELECT tp.PropertyId,tp.TenantId,tp.StartDate,tp.EndDate,
tp.PaymentFrequencyId, tp.PaymentAmount,
	CASE
		WHEN (tp.PaymentFrequencyId = 1 /*Weekly*/) THEN
DATEDIFF(WEEK,tp.StartDate,tp.EndDate) * tp.PaymentAmount
		WHEN (tp.PaymentFrequencyId = 2 /*Fortnightly*/) THEN
(DATEDIFF(WEEK,tp.StartDate,tp.EndDate)/2) * tp.PaymentAmount
			ELSE  (DATEDIFF(MONTH,tp.StartDate,tp.EndDate) +1) *
tp.PaymentAmount
		END AS 'Expected Payment'

	FROM dbo.TenantProperty tp
)
SELECT tp.PropertyId,p.[Name],tpf.[Name],tp.StartDate,tp.EndDate,  tp.[PaymentAmount],
tp.[Expected Payment]
FROM ActualPayment tp INNER JOIN dbo.property p ON (tp.PropertyId =p.Id)
INNER JOIN dbo.TenantPaymentFrequencies tpf ON (tpf.Id =tp.PaymentFrequencyId)
INNER JOIN dbo.OwnerProperty op ON op.PropertyId=p.Id
WHERE op.OwnerId = 1426 and op.OwnershipStatusId =1 /*Owner*/ AND p.IsActive =1
```

b. Display the yield.

Results | Messages

	PropertyId	Name	Name	StartDate	EndDate	PaymentAmount	Expected Payment
1	5597	BI property 1	Weekly	2018-01-01 00:00:00.000	2018-12-31 00:00:00.000	300.00	15600.00
2	5637	BI property 2	Fortnightly	2018-01-01 00:00:00.000	2018-12-31 00:00:00.000	400.00	10400.00
3	5638	BI property 3	Monthly	2018-01-01 13:28:00.000	2018-12-31 13:28:00.000	1000.00	12000.00

```
Display Yield


SELECT tp.PropertyId,p.[Name],tpf.[Name],tp.StartDate,tp.EndDate,tp.PaymentAmount,
	CASE
		WHEN (tp.PaymentFrequencyId = 1 /*Weekly*/) THEN
DATEDIFF(WEEK,tp.StartDate,tp.EndDate) * tp.PaymentAmount
		WHEN (tp.PaymentFrequencyId = 2 /*Fortnightly*/) THEN
(DATEDIFF(WEEK,tp.StartDate,tp.EndDate)/2) * tp.PaymentAmount
			ELSE  (DATEDIFF(MONTH,tp.StartDate,tp.EndDate) +1) *
tp.PaymentAmount
		END AS 'Expected Payment' ,pf.Yield

FROM dbo.TenantProperty tp INNER JOIN dbo.property p ON (tp.PropertyId =p.Id)
INNER JOIN dbo.TenantPaymentFrequencies tpf ON (tpf.Id =tp.PaymentFrequencyId)
INNER JOIN dbo.OwnerProperty op ON op.PropertyId=p.Id
INNER JOIN dbo.PropertyFinance pf ON pf.propertyid=p.Id
WHERE  op.OwnerId = 1426 and op.OwnershipStatusId =1 /*Owner*/ AND p.IsActive =1


GO
```

Results | Messages

	PropertyId	Name	Name	StartDate	EndDate	PaymentAmount	Expected Payment
1	5597	BI property 1	Weekly	2018-01-01 00:00:00.000	2018-12-31 00:00:00.000	300.00	15600.00
2	5637	BI property 2	Fortnightly	2018-01-01 00:00:00.000	2018-12-31 00:00:00.000	400.00	10400.00
3	5638	BI property 3	Monthly	2018-01-01 13:28:00.000	2018-12-31 13:28:00.000	1000.00	12000.00

Assumption: If yield is expected from PropertyFinance- yield field. Above query for it.

d. Display all the jobs available

```
SELECT j.JobDescription AS 'Job Title',js.[Status] AS 'Status of the job'
FROM dbo.job j INNER JOIN dbo.JobStatus js ON j.Id=js.Id
WHERE js.id=1 /* Open*/
```

	Job Title	Status of the job
1	test1	Open

e. Display all property names, current tenants first and last names and rental payments per week/ fortnight/month for the properties in question a).

```
DECLARE @OwnerId int = 1426

SELECT pty.[Id] , pty.[Name] PropertyName,
p.FirstName TenantFirstName,p.LastName AS TenantLastName,
tpf.[Name] AS 'Rental Payment Frequency',prp.Amount AS 'Rental Payment'
FROM dbo.tenant t INNER JOIN dbo.Person p ON t.id=p.Id
INNER JOIN dbo.TenantProperty tp  ON tp.TenantId=t.Id
INNER JOIN dbo.Property pty ON pty.Id=tp.PropertyId
INNER JOIN dbo.PropertyRentalPayment prp ON prp.PropertyId =pty.id
INNER JOIN dbo.TenantPaymentFrequencies tpf ON tpf.id=prp.FrequencyType
INNER JOIN dbo.OwnerProperty op ON op.PropertyId=pty.Id
WHERE    t.IsActive =1 and tp.IsActive = 1 AND (tp.EndDate IS NOT NULL OR tp.EndDate
>= GETDATE())
AND op.OwnerId=@OwnerId
```

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Results | Messages

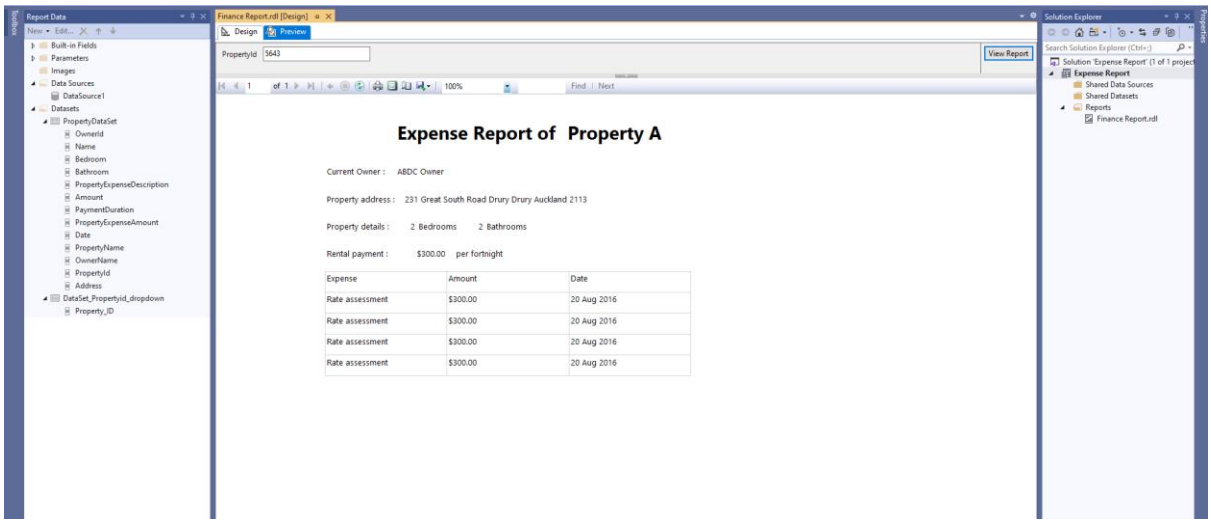
	Id	PropertyName	TenantFirstName	TenantLastName	Rental Payment Frequency	Rental Payment
1	5637	BI property 2	BI	Tenant	Fortnightly	400.00
2	5638	BI property 3	BI	Tenant	Weekly	45.00
3	5638	BI property 3	BI	Tenant	Monthly	3.00

Assumption:

- Current active tenants are taken by checking the TenantPropertyEndDate.
  If null → Open Tenancy without end date
  If has value → It should not be a past date

SSRS Report Query

```
SELECT        OwnerProperty.OwnerId, Person.FirstName + ' ' + Person.LastName AS Name,
Property.Id AS PropertyID, Property.Bedroom, Property.Bathroom,
TenantProperty.PaymentAmount, CASE
           WHEN (TenantProperty.PaymentFrequencyId = 1 /*Weekly*/) THEN  'per week'
           WHEN (TenantProperty.PaymentFrequencyId = 2 /*Fortnightly*/) THEN 'per
fortnight'
                    ELSE  'per month'
             END AS 'PaymentDuration',
                        PropertyExpense.Description AS PropertyExpenseDescription,
PropertyExpense.Amount AS PropertyExpenseAmount, PropertyExpense.Date, Property.Name
AS PropertyName,
                        Person.FirstName + ' ' + Person.LastName AS OwnerName,
                        Address.Number + ' ' + Address.Street + ' ' + Address.Suburb
+ ' ' + Address.City + ' ' + Address.Region + ' ' + Address.PostCode AS Address,
TenantPaymentFrequencies.Name AS [PaymentFrequecy]
FROM            OwnerProperty INNER JOIN
                        Property ON OwnerProperty.PropertyId = Property.Id INNER JOIN
                        PropertyExpense ON Property.Id = PropertyExpense.PropertyId
INNER JOIN
                        Person ON OwnerProperty.OwnerId = Person.Id INNER JOIN
                        Address ON Property.AddressId = Address.AddressId INNER JOIN
                        TenantProperty ON Property.Id = TenantProperty.PropertyId
INNER JOIN
                        TenantPaymentFrequencies ON TenantProperty.PaymentFrequencyId
= TenantPaymentFrequencies.Id
WHERE        (Property.Id IN (@Para_Property)) AND Property.IsActive =1
```



Assumption:

- Check active property using PropertyIsactive.