**Этапы выполнения:**

*Для выполнения данной работы, создайте новый файл в Microsoft SQL Server Management Studio, для работы со сценариями функций.*

1. Описание и реализация статистических задач;

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| **№ Задачи** | | | | | | | | **I** | **Задача:** | | | | | | | | Вывести номер договора, дату и время создания договора, вывести количество дополнительных договоров. |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  c.[Number\_Contract] AS ContractNumber,  c.[DateTime\_Forming\_Contract] AS ContractDateTime,  COUNT(adc.[ID\_Additional\_Client\_Contract]) AS AdditionalContractsCount  FROM  [dbo].[Contract] c  LEFT JOIN  [dbo].[Client\_Contract] cc ON c.[ID\_Contract] = cc.[Contract\_ID]  LEFT JOIN  [dbo].[Additional\_Client\_Contract] adc ON cc.[ID\_Client\_Contract] = adc.[Client\_Contract\_ID]  GROUP BY  c.[Number\_Contract], c.[DateTime\_Forming\_Contract]; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | |  |
| **№ Задачи** | | | | | | | | **II** | **Задача:** | | | | | | | | Вывести ФИО сотрудника, среднеарифметическое значение итоговой стоимости договоров, по каждому работнику. |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  CONCAT(e.[Surname\_Employee], ' ', e.[Name\_Employee], ' ', e.[Patronymic\_Employee]) AS EmployeeFullName,  ROUND(AVG(c.[Final\_Cost\_Contract]), 2) AS AvgFinalCost  FROM  [dbo].[Employee] e  JOIN  [dbo].[Contract] c ON e.[ID\_Employee] = c.[Employee\_ID]  GROUP BY  e.[Surname\_Employee], e.[Name\_Employee], e.[Patronymic\_Employee]; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | | | | | | **III** | **Задача:** | | | | | | | | Вывести название инвентаря и суммарную стоимость по каждому инвентарю относительно имеющегося количества инвентаря |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  i.[Number\_Inventory] AS InventoryNumber,  SUM(i.[Cost\_Inventory] \* i.[Count\_Inventory]) AS TotalCost  FROM  [dbo].[Inventory] i  GROUP BY  i.[Number\_Inventory]; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | | | | | | **IV** | **Задача:** | | | | | | | | Вывести номер договора, инвентарный номер, количество инвентаря в договоре, стоимость инвентаря и стоимость инвентаря с дополнительными 15% в случае поломки, полученное значение округлить до 2 знаков после запятой. |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  c.[Number\_Contract] AS ContractNumber,  i.[Number\_Inventory] AS InventoryNumber,  isc.[Count\_Inventory\_Supplier\_Contracts] AS InventoryCount,  i.[Cost\_Inventory] AS InventoryCost,  ROUND(i.[Cost\_Inventory] \* 1.15, 2) AS InventoryCostWithBreakage  FROM  [dbo].[Contract] c  JOIN  [dbo].[Inventory\_Contract] ic ON c.[ID\_Contract] = ic.[Contract\_ID]  JOIN  [dbo].[Inventory] i ON ic.[Inventory\_ID] = i.[ID\_Inventory]  JOIN  [dbo].[Inventory\_Supplier\_Contracts] isc ON i.[ID\_Inventory] = isc.[Inventory\_ID]; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | |  |
| **№ Задачи** | | | | | | | | **V** | **Задача:** | | | | | | | | Вывести в одном столбце, ФИО клиента, номер телефона, номера договоров. |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  STRING\_AGG(  CONCAT(  c.Surname\_Client, ' ', c.Name\_Client, ' ', c.Patronymic\_Client,  ' (', c.Phone\_Number\_Client, '): ',  co.Number\_Contract  ),  ', '  ) AS Client\_Info  FROM  [dbo].[Client] c  JOIN  [dbo].[Client\_Contract] cc ON c.ID\_Client = cc.Client\_ID  JOIN  [dbo].[Contract] co ON cc.Contract\_ID = co.ID\_Contract  GROUP BY  c.ID\_Client; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | | | | | | **VI** | **Задача:** | | | | | | | | Вывести ФИО клиента, серию и номер паспорта, адрес электронной почты, отдельным столбцом вывести длину адреса электронной почты. |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  CONCAT(c.Surname\_Client, ' ', c.Name\_Client, ' ', c.Patronymic\_Client) AS Full\_Name,  CONCAT(c.Passport\_Series\_Client, ' ', c.Passport\_Number\_Client) AS Passport,  c.Email\_Client,  LEN(c.Email\_Client) AS Email\_Length  FROM  [dbo].[Client] c; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | |  |
| **№ Задачи** | | | | | | | | **VII** | **Задача:** | | | | | | | | Вывести вид инвентаря, марку и модель инвентаря в верхнем регистре. |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  UPPER(i.Number\_Inventory) AS Inventory\_Type,  UPPER(m.Name\_Mark) AS Mark,  UPPER(mo.Name\_Model) AS Model  FROM  [dbo].[Inventory] i  JOIN  [dbo].[Mark\_Model\_Inventory] mmi ON i.ID\_Inventory = mmi.Inventory\_ID  JOIN  [dbo].[Model] mo ON mmi.Model\_ID = mo.ID\_Model  JOIN  [dbo].[Mark] m ON mo.Mark\_ID = m.ID\_Mark; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | |  |
| **№ Задачи** | | | | | | | | **VIII** | **Задача:** | | | | | | | | Вывести номер договора на игру, дату и время формирования договора вывести в формате – Дата: ДД/ММ/ГГ, время: ЧЧ-ММ. |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  c.Number\_Contract AS Contract\_Number,  CONCAT(  'Дата: ',  FORMAT(c.DateTime\_Forming\_Contract, 'dd/MM/yy'),  ', время: ',  FORMAT(c.DateTime\_Forming\_Contract, 'HH-mm')  ) AS Formatted\_DateTime  FROM  [dbo].[Contract] c; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | |  |
| **№ Задачи** | | | | | | | | **IX** | **Задача:** | | | | | | | | Вывести номер договора о поставке, дату формирования договора, и конечную дату окончания действия договора. |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  sc.Contract\_Number\_Supplier\_Contracts AS Contract\_Number,  sc.Date\_Of\_Formation\_Supplier\_Contracts AS Formation\_Date,  DATEADD(DAY, CONVERT(INT, SUBSTRING(sc.Validity\_Period\_Supplier\_Contracts, 1, CHARINDEX(' ', sc.Validity\_Period\_Supplier\_Contracts) - 1)), sc.Date\_Of\_Formation\_Supplier\_Contracts) AS End\_Date  FROM  [dbo].[Supplier\_Contracts] sc; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | | | | | | **X** | **Задача:** | | | | | | | | Вывести название инвентаря относительно максимальной стоимости |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  i.Number\_Inventory AS Inventory\_Name,  i.Cost\_Inventory AS Cost  FROM  [dbo].[Inventory] i  WHERE  i.Cost\_Inventory = (SELECT MAX(Cost\_Inventory) FROM [dbo].[Inventory]); |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | |  |
| **№ Задачи** | | **XI** | | | | | | | | **Задача:** | | | | | | | Вывести название вида инвентаря и нумерованным списком вывести, для каждого вида марку и модель инвентаря |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  i.Number\_Inventory AS Inventory\_Name,  i.Cost\_Inventory AS Cost  FROM  [dbo].[Inventory] i  WHERE  i.Cost\_Inventory = (SELECT MAX(Cost\_Inventory) FROM [dbo].[Inventory]); |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | **XII** | | | | | | | | | | **Задача:** | | | | | | Вывести номера договоров о поставке, дату формирования, суммарное количество позиций к поставке, вывести первые две самые большие поставки. |
| **Скрипт** | | | | | | | | | | | | | | | | | WITH SupplierContractsSummary AS (  SELECT  sc.Contract\_Number\_Supplier\_Contracts AS Contract\_Number,  sc.Date\_Of\_Formation\_Supplier\_Contracts AS Formation\_Date,  SUM(isc.Count\_Inventory\_Supplier\_Contracts) AS Total\_Count,  ROW\_NUMBER() OVER (ORDER BY SUM(isc.Count\_Inventory\_Supplier\_Contracts) DESC) AS RowNum  FROM  [dbo].[Supplier\_Contracts] sc  JOIN  [dbo].[Inventory\_Supplier\_Contracts] isc ON sc.ID\_Supplier\_Contracts = isc.Supplier\_Contracts\_ID  GROUP BY  sc.Contract\_Number\_Supplier\_Contracts, sc.Date\_Of\_Formation\_Supplier\_Contracts  )  SELECT  Contract\_Number,  Formation\_Date,  Total\_Count  FROM  SupplierContractsSummary  WHERE  RowNum <= 2; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | **XIII** | | | | | | | | | **Задача:** | | | | | Вывести номер договора, дату и время формирования, напротив каждого договора вывести списком номер инвентаря и количество инвентаря. |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  sc.Contract\_Number\_Supplier\_Contracts AS Contract\_Number,  sc.Date\_Of\_Formation\_Supplier\_Contracts AS Formation\_Date,  STRING\_AGG(  CONCAT(  i.Number\_Inventory, ' (', isc.Count\_Inventory\_Supplier\_Contracts, ')'  ),  ', '  ) AS Inventory\_List  FROM  [dbo].[Supplier\_Contracts] sc  JOIN  [dbo].[Inventory\_Supplier\_Contracts] isc ON sc.ID\_Supplier\_Contracts = isc.Supplier\_Contracts\_ID  JOIN  [dbo].[Inventory] i ON isc.Inventory\_ID = i.ID\_Inventory  GROUP BY  sc.Contract\_Number\_Supplier\_Contracts, sc.Date\_Of\_Formation\_Supplier\_Contracts; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | | **XIV** | | | | | | | | | **Задача:** | | | | Вывести ФМО клиента и номер телефона без специальных символов +()-, 7 заменить на 8. |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  CONCAT(c.Surname\_Client, ' ', c.Name\_Client, ' ', c.Patronymic\_Client) AS Full\_Name,  REPLACE(  REPLACE(  REPLACE(  REPLACE(  REPLACE(c.Phone\_Number\_Client, '+', ''),  '(', ''  ),  ')', ''  ),  '-', ''  ),  '7', '8'  ) AS Cleaned\_Phone\_Number  FROM  [dbo].[Client] c; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | | | **XV** | | | | | | | | | **Задача:** | | | Вывести ФИО клиента, контактный телефон клиента, кем выдан паспорт в нижнем регистре. |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  CONCAT(c.Surname\_Client, ' ', c.Name\_Client, ' ', c.Patronymic\_Client) AS Full\_Name,  c.Phone\_Number\_Client AS Contact\_Phone,  LOWER(c.Who\_Issued\_Passport\_Client) AS Issued\_By  FROM  [dbo].[Client] c; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | | | | **XVI** | | | | | | | | | **Задача:** | | Вывести номер договора клиента, ФИО клиента, месяц и год рождения клиента. |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  co.Number\_Contract AS Contract\_Number,  CONCAT(c.Surname\_Client, ' ', c.Name\_Client, ' ', c.Patronymic\_Client) AS Full\_Name,  DATEPART(MONTH, c.Birth\_Client) AS Birth\_Month,  DATEPART(YEAR, c.Birth\_Client) AS Birth\_Year  FROM  [dbo].[Client] c  JOIN  [dbo].[Client\_Contract] cc ON c.ID\_Client = cc.Client\_ID  JOIN  [dbo].[Contract] co ON cc.Contract\_ID = co.ID\_Contract; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | | | | | **XVII** | | | | | | | | | **Задача:** | Вывести номер договора, дату и время формирования договора, и вывести разницу в минутах, сколько времени прошло с момента создания договора до конца игры |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  c.Number\_Contract AS Contract\_Number,  c.DateTime\_Forming\_Contract AS Formation\_DateTime,  DATEDIFF(MINUTE, c.DateTime\_Forming\_Contract, DATEADD(MINUTE, c.Game\_Duration\_Contract \* 60, c.Game\_Start\_Time\_Contract)) AS Minutes\_Difference  FROM  [dbo].[Contract] c; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | | | | | **XVIII** | | | | | | | | | **Задача:** | Вывести название инвентаря и самое минимальное количество в поставке |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  i.Number\_Inventory AS Inventory\_Name,  MIN(isc.Count\_Inventory\_Supplier\_Contracts) AS Min\_Quantity  FROM  [dbo].[Inventory] i  JOIN  [dbo].[Inventory\_Supplier\_Contracts] isc ON i.ID\_Inventory = isc.Inventory\_ID  GROUP BY  i.Number\_Inventory; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | | | | | **XIX** | | | | | | | | | **Задача:** | Вывести только уникальные отделения которые выдали паспорта клиентам |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT DISTINCT  c.Who\_Issued\_Passport\_Client AS Issuing\_Department  FROM  [dbo].[Client] c; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | | | | | **XX** | | | | | | | | | **Задача:** | Вывести номер договора с поставщиком, инвентарный номер поставляемого инвентаря, количество, стоимость аренды каждого инвентаря сниженная на 20% , произведение полученной стоимости на количество, с округлением до 1 знака после запятой. |
| **Скрипт** | | | | | | | | | | | | | | | | | SELECT  sc.Contract\_Number\_Supplier\_Contracts AS Contract\_Number,  i.Number\_Inventory AS Inventory\_Number,  isc.Count\_Inventory\_Supplier\_Contracts AS Quantity,  ROUND(i.Cost\_Inventory \* 0.8, 1) AS Reduced\_Cost,  ROUND(isc.Count\_Inventory\_Supplier\_Contracts \* (i.Cost\_Inventory \* 0.8), 1) AS Total\_Cost  FROM  [dbo].[Supplier\_Contracts] sc  JOIN  [dbo].[Inventory\_Supplier\_Contracts] isc ON sc.ID\_Supplier\_Contracts = isc.Supplier\_Contracts\_ID  JOIN  [dbo].[Inventory] i ON isc.Inventory\_ID = i.ID\_Inventory; |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | |  |
| **№ Задачи** | | | | | | | **XXI** | | | | | | | | | **Задача:** | Выводить информацию о инвентаре (Тест 1) |
| **Скрипт** | | | | | | | | | | | | | | | | | CREATE OR ALTER FUNCTION GetInventoryInfo(@inventory\_number VARCHAR(255))  RETURNS TABLE  AS  RETURN  (  SELECT  CONCAT(  CONCAT(Mark.Name\_Mark, ' ', Model.Name\_Model),  ', доступное количество: ', I.Count\_Inventory, ' шт.',  ', характеристики: ', ISNULL(STUFF(  (SELECT ', ' + C.Value\_Characteristic  FROM Inventory\_Characteristic IC  JOIN Characteristic C ON IC.Characteristic\_ID = C.ID\_Characteristic  WHERE IC.Inventory\_ID = I.ID\_Inventory  FOR XML PATH('')), 1, 2, ''), '')  ) AS result\_text  FROM  Inventory I  JOIN Mark\_Model\_Inventory MMI ON I.ID\_Inventory = MMI.Inventory\_ID  JOIN Model ON MMI.Model\_ID = Model.ID\_Model  JOIN Mark ON Model.Mark\_ID = Mark.ID\_Mark  WHERE I.Number\_Inventory = @inventory\_number  )  go  SELECT \* FROM GetInventoryInfo('ИнВ-00000001'); |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | | | | | **XXII** | | | | | | | | | **Задача:** | Выводить информацию о договорах (Тест 2) |
| **Скрипт** | | | | | | | | | | | | | | | | | CREATE OR ALTER FUNCTION GetEmployeeContracts(@p\_login\_employee VARCHAR(255), @p\_password\_employee VARCHAR(36))  RETURNS @result\_table TABLE (result\_text VARCHAR(MAX))  AS  BEGIN  DECLARE @result\_text VARCHAR(MAX);  SELECT  @result\_text = CONCAT(  E.Surname\_Employee, ' ', E.Name\_Employee, ' ', COALESCE(E.Patronymic\_Employee, ''),  CASE  WHEN COUNT(C.Number\_Contract) > 0 THEN  ', договора: ' + STRING\_AGG(C.Number\_Contract, ', ')  ELSE  ', договора: 0'  END  )  FROM  Employee E  LEFT JOIN Contract C ON E.ID\_Employee = C.Employee\_ID  WHERE E.Login\_Employee = @p\_login\_employee AND E.Password\_Employee = @p\_password\_employee  GROUP BY E.Surname\_Employee, E.Name\_Employee, E.Patronymic\_Employee;  IF @result\_text IS NULL  BEGIN  SET @result\_text = 'Не верный ввод данных!';  END  INSERT INTO @result\_table (result\_text) VALUES (@result\_text);  RETURN;  END;  go  SELECT \* FROM GetEmployeeContracts('em\_IvanovII', 'Pa$$w0rd'); |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |
| **№ Задачи** | | | | | | | **XXIII** | | | | | | | | | **Задача:** | Выводить информацию о договоре (Тест 3) |
| **Скрипт** | | | | | | | | | | | | | | | | | CREATE OR ALTER FUNCTION GetSupplierContracts(@p\_okpo\_suppliers VARCHAR(10))  RETURNS @result\_table TABLE (contract\_info NVARCHAR(MAX))  AS  BEGIN  IF @p\_okpo\_suppliers IS NULL  BEGIN  INSERT INTO @result\_table (contract\_info)  SELECT  CONCAT(  'Договор ', SC.Contract\_Number\_Supplier\_Contracts, '/', YEAR(SC.Date\_Of\_Formation\_Supplier\_Contracts), ' ',  FORMAT(SC.Date\_Of\_Formation\_Supplier\_Contracts, 'dd.MM.yyyy'), ' - ',  CASE  WHEN SC.Validity\_Period\_Supplier\_Contracts LIKE '%год%' THEN  FORMAT(DATEADD(YEAR, 1, SC.Date\_Of\_Formation\_Supplier\_Contracts), 'dd.MM.yyyy') + ' - ' + SC.Validity\_Period\_Supplier\_Contracts  WHEN SC.Validity\_Period\_Supplier\_Contracts LIKE '%месяц%' THEN  FORMAT(DATEADD(MONTH, 1, SC.Date\_Of\_Formation\_Supplier\_Contracts), 'dd.MM.yyyy') + ' - ' + SC.Validity\_Period\_Supplier\_Contracts  ELSE  FORMAT(SC.Date\_Of\_Formation\_Supplier\_Contracts, 'dd.MM.yyyy') + ' - Нет данных'  END, ' ',  STRING\_AGG(CONCAT('ИнВ-', ISC.Inventory\_ID, ', кол-во: ', ISC.Count\_Inventory\_Supplier\_Contracts), '; ')  ) AS contract\_info  FROM  Supplier\_Contracts SC  JOIN  Inventory\_Supplier\_Contracts ISC ON SC.ID\_Supplier\_Contracts = ISC.Supplier\_Contracts\_ID  GROUP BY  SC.ID\_Supplier\_Contracts, SC.Contract\_Number\_Supplier\_Contracts, SC.Date\_Of\_Formation\_Supplier\_Contracts, SC.Validity\_Period\_Supplier\_Contracts  ORDER BY  SC.Date\_Of\_Formation\_Supplier\_Contracts DESC;  END  ELSE  BEGIN  INSERT INTO @result\_table (contract\_info)  SELECT  CONCAT(  'Договор ', SC.Contract\_Number\_Supplier\_Contracts, '/', YEAR(SC.Date\_Of\_Formation\_Supplier\_Contracts), ' ',  FORMAT(SC.Date\_Of\_Formation\_Supplier\_Contracts, 'dd.MM.yyyy'), ' - ',  CASE  WHEN SC.Validity\_Period\_Supplier\_Contracts LIKE '%год%' THEN  FORMAT(DATEADD(YEAR, 1, SC.Date\_Of\_Formation\_Supplier\_Contracts), 'dd.MM.yyyy') + ' - ' + SC.Validity\_Period\_Supplier\_Contracts  WHEN SC.Validity\_Period\_Supplier\_Contracts LIKE '%месяц%' THEN  FORMAT(DATEADD(MONTH, 1, SC.Date\_Of\_Formation\_Supplier\_Contracts), 'dd.MM.yyyy') + ' - ' + SC.Validity\_Period\_Supplier\_Contracts  ELSE  FORMAT(SC.Date\_Of\_Formation\_Supplier\_Contracts, 'dd.MM.yyyy') + ' - Нет данных'  END, ' ',  STRING\_AGG(CONCAT('ИнВ-', ISC.Inventory\_ID, ', кол-во: ', ISC.Count\_Inventory\_Supplier\_Contracts), '; ')  ) AS contract\_info  FROM  Suppliers S  JOIN  Supplier\_Contracts SC ON S.ID\_Supplier = SC.Supplier\_ID  JOIN  Inventory\_Supplier\_Contracts ISC ON SC.ID\_Supplier\_Contracts = ISC.Supplier\_Contracts\_ID  WHERE  S.OKPO\_Suppliers = @p\_okpo\_suppliers  GROUP BY  SC.ID\_Supplier\_Contracts, SC.Contract\_Number\_Supplier\_Contracts, SC.Date\_Of\_Formation\_Supplier\_Contracts, SC.Validity\_Period\_Supplier\_Contracts  ORDER BY  SC.Date\_Of\_Formation\_Supplier\_Contracts DESC;  END  IF NOT EXISTS (SELECT 1 FROM @result\_table)  BEGIN  INSERT INTO @result\_table (contract\_info) VALUES ('Нет данных');  END  RETURN;  END;  go  SELECT \* FROM GetSupplierContracts('9257257205'); |
| **Результат SSMS** | | | | | | | | | | | | | | | | |  |
| **График MS Excel** | | | | | | | | | | | | | | | | | - |

1. Отчёт об используемых функциях.

| Название функции и ключевых слов | № задач(и) |
| --- | --- |
| Group by | **I, II, III, V, XII, XIII, XVIII, XXII, XXIII** |
| Having |  |
| Count | **I, XXII** |
| Sum | **III, XII** |
| Avg | **II** |
| Max | **X, XI,** |
| Min | **XVIII** |
| Top |  |
| Row\_Number |  |
| Disctinct |  |
| Round | **II, IV, XX,** |
| String\_Agg | **V, XIII, XXII,** |
| Concat | **II, V, VI, VIII, XIV, XV, XVI, XXI, XXI, XXII, XXIII** |
| Lower | **XV** |
| Upper | **VII** |
| Substring | **IX** |
| Format | **VIII,** |
| DateAdd | IX, XII, XIII, XVII, XXIII, |
| Case | XXII, XXIII |
| DatePart | **XVI** |
| DateDiff | **XVII** |
| Пользовательская агрегатная функция |  |
| Пользовательская табличная функция | **XXI, XXII, XXIII** |

1. Скриншот обозревателя объектов

