



@PURNADATASCIENCE

Overview

This project involves analyzing healthcare data to provide insights into various aspects of patient care and provider performance. The dataset includes information on patient treatments, healthcare providers, and insurance coverage, with a focus on evaluating treatment costs, insurance coverage, and follow-up requirements.



List all treatments involving surgery:

```
SELECT * FROM HealthcareData WHERE Age > 50;
```

Result Grid												
Filter Rows: <input type="text"/> Edit: Export/Import: Wrap Cell Content:												
	Patient_ID	Patient_Name	Age	Gender	Settlement_Date	Settlement_Amount	Healthcare_Provider	Provider_Location	Treatment_Type	Treatment_Start_Date	Treatment_End_Date	
▶	3	Michael Brown	55	Male	2020-11-05	32000.00	City Hospital	Location 8	Counseling	2020-11-10	2020-12-10	18
	6	Sarah Johnson	62	Female	2021-06-25	18000.00	Total Care	Location 9	Surgery	2021-07-01	2021-07-25	21
	9	James White	53	Male	2022-11-15	40000.00	City Hospital	Location 6	Medication	2022-11-20	2022-12-05	11
	11	Paul Harris	60	Male	2023-03-12	35000.00	Health Plus	Location 2	Rehabilitation	2023-03-15	2023-04-10	21
	13	Benjamin Scott	52	Male	2020-05-10	28000.00	Wellness Clinic	Location 4	Physical Therapy	2020-05-15	2020-05-30	10
	15	William King	64	Male	2023-07-14	33000.00	Total Care	Location 6	Counseling	2023-07-18	2023-08-08	20
	21	Daniel Moore	54	Male	2022-08-18	29000.00	MediCare Health	Location 3	Surgery	2022-08-20	2022-09-10	21
	29	Zoe Campbell	56	Female	2022-10-22	34000.00	Family Care Center	Location 10	Surgery	2022-10-25	2022-11-20	21
✱	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL	NULL

List all treatments involving surgery:

```
85 -- List all treatments involving surgery:
86 -- Write a query to list all patients who underwent surgery.
87 SELECT
88     *
89 FROM
90     HealthcareData
91 WHERE
92     Treatment_Type = 'Surgery';
93
```

[illegible]

Count the number of male and female patients:

```
94  -- Count the number of male and female patients:
95  -- Write a query to count how many male and female patients are in the dataset.
96  SELECT
97      Gender, COUNT(*) AS NumberOfPatients
98  FROM
99      HealthcareData
100 GROUP BY Gender;
```

Result Grid			Filter Rows:	Export:	Wrap Cell Content:
	Gender	NumberOfPatients			
▶	Male	16			
	Female	14			

Identify patients who required follow-up:

```
L04 SELECT
L05 *
L06 FROM
L07 HealthcareData
L08 WHERE
L09 Follow_Up_Required = 'Yes';
L10
```

Result Grid											
Filter Rows:											
Edit: Export/Import: Wrap Cell Content:											
Patient_ID	Patient_Name	Age	Gender	Settlement_Date	Settlement_Amount	Healthcare_Provider	Provider_Location	Treatment_Type	Treatment_Start_Date	Treatment_End_Date	Cost_of_Treat
1	John Doe	42	Male	2022-05-14	20000.00	MediCare Health	Location 5	Surgery	2022-05-20	2022-06-15	15000.00
3	Michael Brown	55	Male	2020-11-05	32000.00	City Hospital	Location 8	Counseling	2020-11-10	2020-12-10	18000.00
5	David Wilson	47	Male	2022-03-18	28000.00	Health Plus	Location 3	Rehabilitation	2022-03-20	2022-04-15	21000.00
6	Sarah Johnson	62	Female	2021-06-25	18000.00	Total Care	Location 9	Surgery	2021-07-01	2021-07-25	25000.00
9	James White	53	Male	2022-11-15	40000.00	City Hospital	Location 6	Medication	2022-11-20	2022-12-05	15000.00
10	Laura Thompson	45	Female	2021-01-22	27000.00	Family Care Center	Location 3	Surgery	2021-01-28	2021-02-20	20000.00
11	Paul Harris	60	Male	2023-03-12	35000.00	Health Plus	Location 2	Rehabilitation	2023-03-15	2023-04-10	25000.00
14	Emma Wright	25	Female	2022-12-01	19000.00	Family Care Center	Location 8	Medication	2022-12-05	2022-12-15	7000.00
16	Ava Adams	29	Female	2021-10-10	25000.00	MediCare Health	Location 9	Surgery	2021-10-15	2021-11-05	20000.00
19	Lucas Young	50	Male	2023-09-05	26000.00	Health Plus	Location 7	Counseling	2023-09-08	2023-09-25	18000.00
20	Sophia Hill	43	Female	2021-12-20	17000.00	Family Care Center	Location 10	Rehabilitation	2021-12-22	2022-01-15	15000.00

```
6 SELECT
7     *
8 FROM
9     HealthcareData
0 WHERE
1     Treatment_Start_Date BETWEEN '2022-01-01' AND '2022-12-31';
2
```

Find healthcare providers who performed more than one type of treatment:

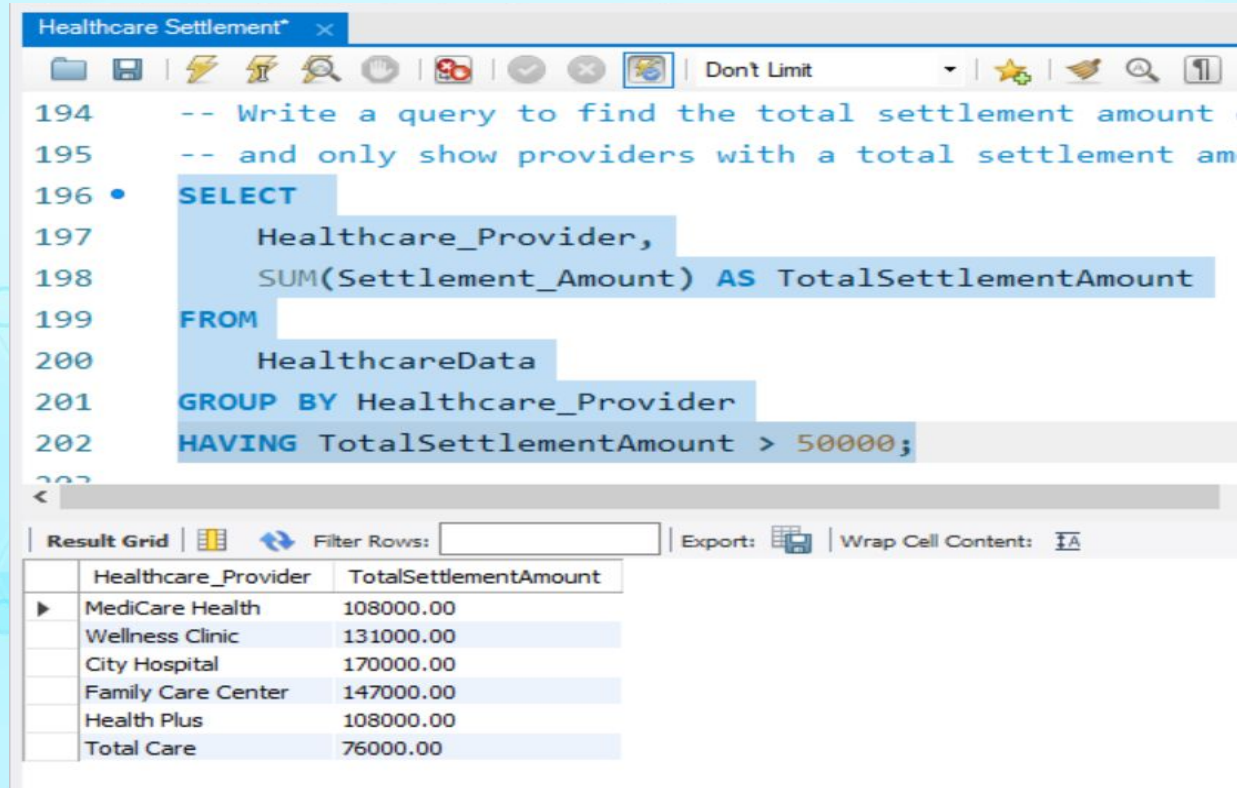
```
185 SELECT
186     Healthcare_Provider,
187     COUNT(DISTINCT Treatment_Type) AS NumberOfTreatments
188 FROM
189     HealthcareData
190 GROUP BY Healthcare_Provider
191 HAVING NumberOfTreatments > 1;
192
```

<

Result Grid   Filter Rows: | Export:  | Wrap Cell Content: 

	Healthcare_Provider	NumberOfTreatments
▶	City Hospital	4
	Family Care Center	4
	Health Plus	3
	MediCare Health	2
	Total Care	3
	Wellness Clinic	3

Total Settlement Amount by Healthcare Provider:

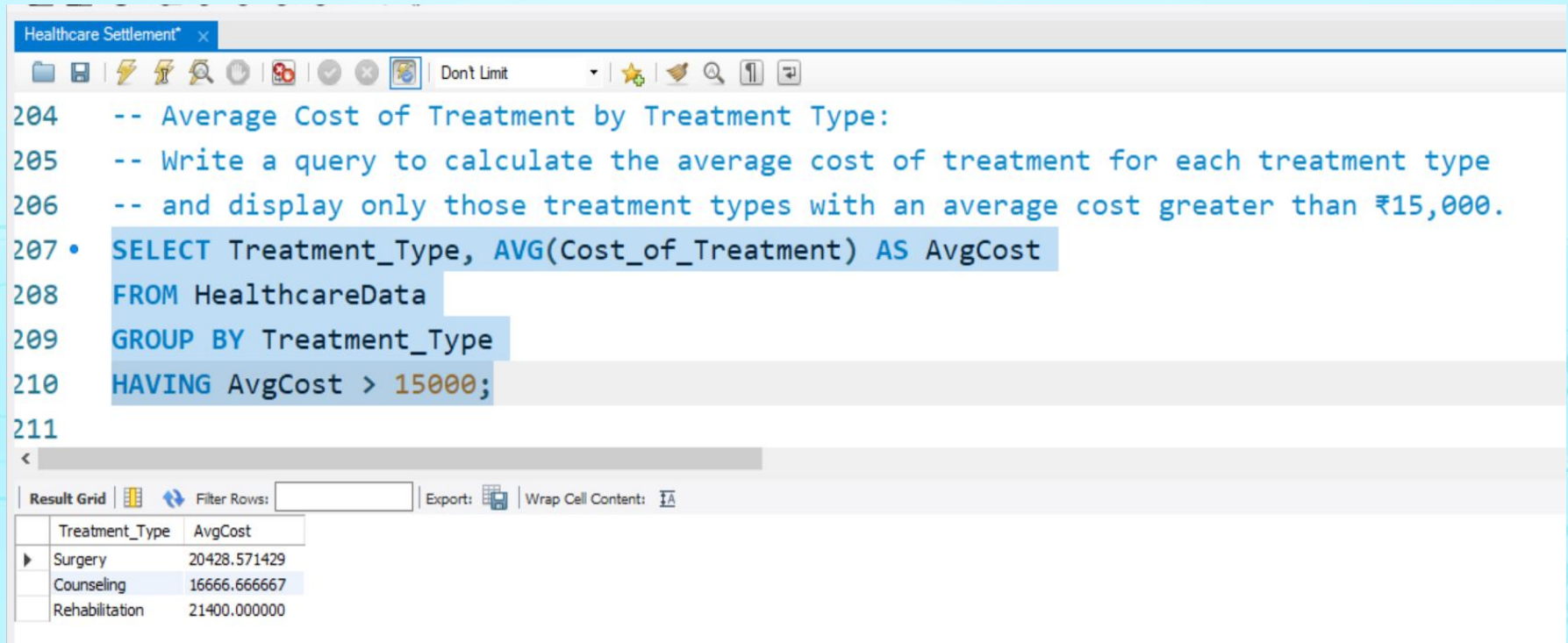


```
194 -- Write a query to find the total settlement amount
195 -- and only show providers with a total settlement am
196 • SELECT
197     Healthcare_Provider,
198     SUM(Settlement_Amount) AS TotalSettlementAmount
199 FROM
200     HealthcareData
201 GROUP BY Healthcare_Provider
202 HAVING TotalSettlementAmount > 50000;
```

Result Grid | Filter Rows: | Export: | Wrap Cell Content: |

Healthcare_Provider	TotalSettlementAmount
MediCare Health	108000.00
Wellness Clinic	131000.00
City Hospital	170000.00
Family Care Center	147000.00
Health Plus	108000.00
Total Care	76000.00

Average Cost of Treatment by Treatment Type:



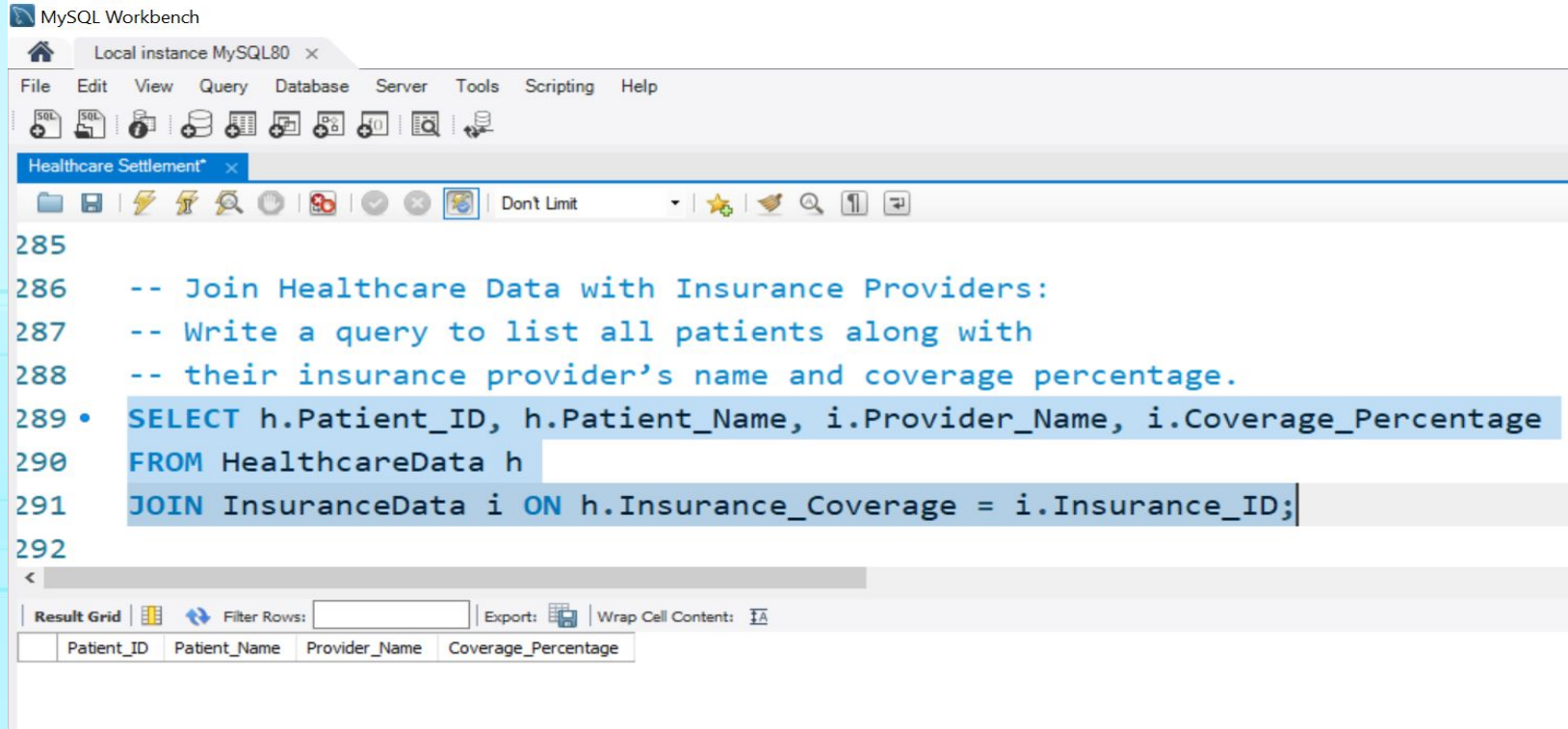
The screenshot shows a software window titled "Healthcare Settlement*". The main area contains a SQL query with line numbers 204 through 211. The query is as follows:

```
204  -- Average Cost of Treatment by Treatment Type:
205  -- Write a query to calculate the average cost of treatment for each treatment type
206  -- and display only those treatment types with an average cost greater than ₹15,000.
207  • SELECT Treatment_Type, AVG(Cost_of_Treatment) AS AvgCost
208     FROM HealthcareData
209     GROUP BY Treatment_Type
210     HAVING AvgCost > 15000;
211
```

Below the query, there is a "Result Grid" section. It includes a "Filter Rows:" input field, an "Export:" button, and a "Wrap Cell Content:" checkbox. The results are displayed in a table with two columns: "Treatment_Type" and "AvgCost".

Treatment_Type	AvgCost
Surgery	20428.571429
Counseling	16666.666667
Rehabilitation	21400.000000

Join Healthcare Data with Insurance Providers:



The screenshot shows the MySQL Workbench interface. The title bar indicates 'MySQL Workbench' and 'Local instance MySQL80'. The menu bar includes File, Edit, View, Query, Database, Server, Tools, Scripting, and Help. The toolbar contains various icons for file operations, database management, and execution. The main editor window is titled 'Healthcare Settlement*' and contains a SQL query. The query is as follows:

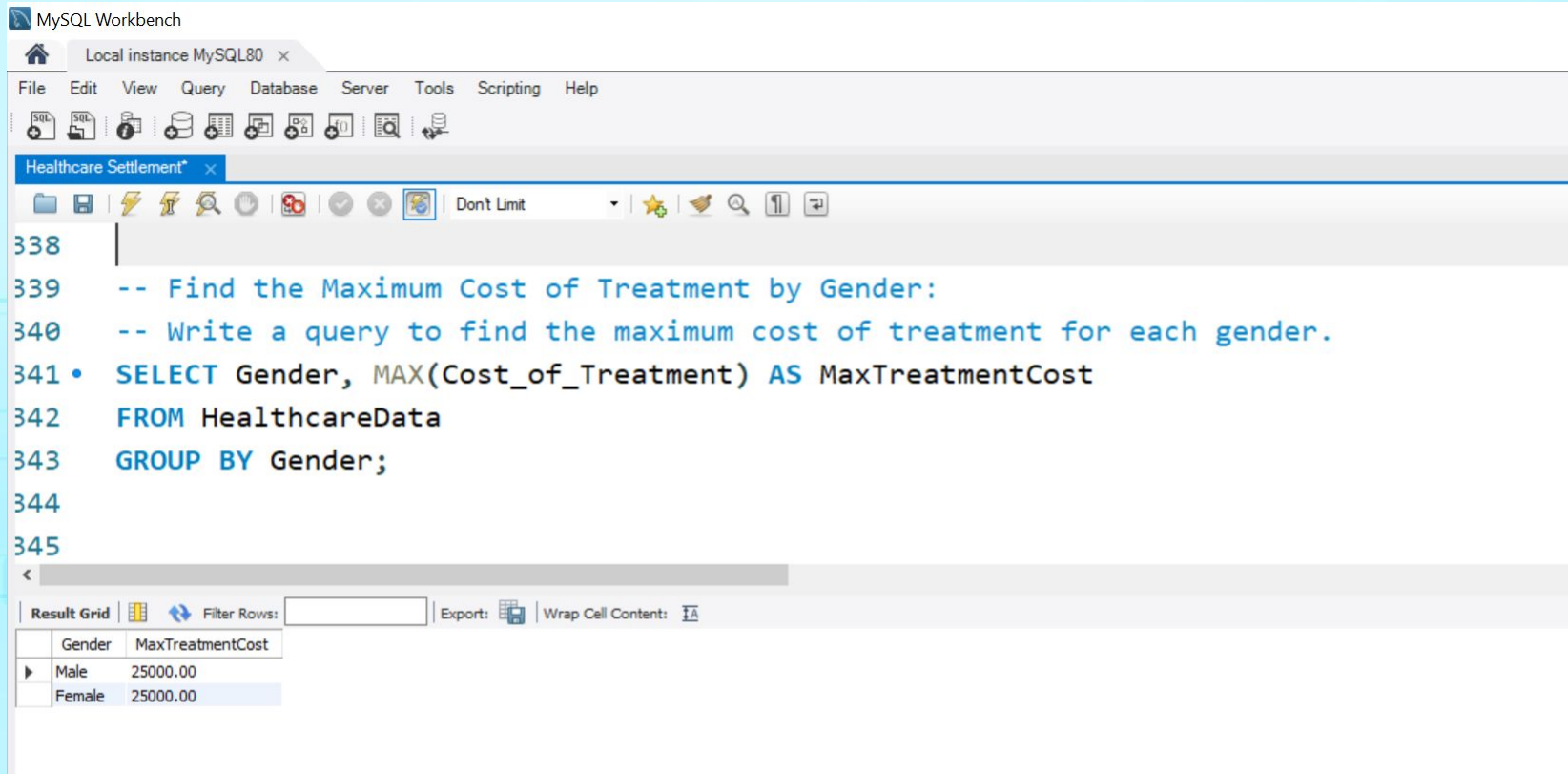
```
285
286 -- Join Healthcare Data with Insurance Providers:
287 -- Write a query to list all patients along with
288 -- their insurance provider's name and coverage percentage.
289 • SELECT h.Patient_ID, h.Patient_Name, i.Provider_Name, i.Coverage_Percentage
290 FROM HealthcareData h
291 JOIN InsuranceData i ON h.Insurance_Coverage = i.Insurance_ID;
292
```

Below the query editor, the 'Result Grid' tab is active, showing the column headers for the query results:

Patient_ID	Patient_Name	Provider_Name	Coverage_Percentage
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The background of the slide features a light blue geometric pattern with hexagons and circles.

Find the Maximum Cost of Treatment by Gender:



The screenshot shows the MySQL Workbench interface. The query editor contains the following SQL code:

```
338  
339 -- Find the Maximum Cost of Treatment by Gender:  
340 -- Write a query to find the maximum cost of treatment for each gender.  
341 • SELECT Gender, MAX(Cost_of_Treatment) AS MaxTreatmentCost  
342 FROM HealthcareData  
343 GROUP BY Gender;  
344  
345
```

The results are displayed in the 'Result Grid' at the bottom. The grid shows two columns: 'Gender' and 'MaxTreatmentCost'. The data is as follows:

Gender	MaxTreatmentCost
Male	25000.00
Female	25000.00

Extract Year from Settlement Date:

```
9  -- Extract Year from Settlement Date:
0  -- Write a query to extract the year from the settlement date for each patient.
1 • SELECT Patient_ID, Patient_Name, YEAR(Settlement_Date) AS SettlementYear
2   FROM HealthcareData;
3
```

result Grid |  Filter Rows: | Export:  | Wrap Cell Content: 

Patient_ID	Patient_Name	SettlementYear
1	John Doe	2022
2	Jane Smith	2021
3	Michael Brown	2020
4	Emily Davis	2023
5	David Wilson	2022
6	Sarah Johnson	2021
7	Chris Lee	2020
8	Anna Martin	2023
9	James White	2022
10	Laura Thompson	2021
11	Paul Harris	2023
12	Olivia Green	2021
13	Benjamin Scott	2020
14	Emma Wright	2022
15	William King	2023
16	Ava Adams	2021

Thank You.

