TIME_SHEET
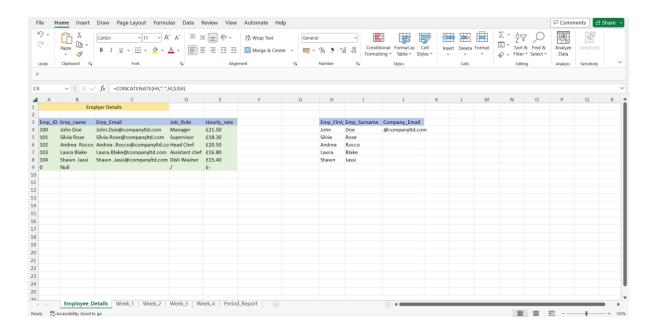
Database Creation and Data Visualization

Abstract

This Project it is to create a period sheet for a small company to keep track to the employee salary in a weekly basis with a period of 4 weeks.

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Contents

1 Creation of Employer details

In the employee sheet we have the detail of the worker with their name, surname, work email, Job role and their current hourly rate.

1.2 Concatenate

To create the email the function which has been used is **Concatenate.**

2. Timesheet creation

A sheet "Week_1" with relevant functions has been created.

2.1 Dropdown List

The column of Emp_ID is a drop-down list which connect to Employee_details sheet with the relevant column.

2.3 VLOOKUP

The column of Job_Role and Hourly_Rate have been connected to Emp_ID with **VLOOKUP** which were connected to the Emplyee_Details sheet with their relevant information's, in this way one only information to input was the employee ID with the drop down menu and the Job_Role and Hourly_rate of relevant individual would appear automatically.

VLOOKUP Code

Code for Hourly_rate VLOOKUP =VLOOKUP(D3,Employer_Details!$A$4:$E$9,5,FALSE)

2.4 IF & Date

For the dates to appear automatically a combination of "IF" & "NOW" functions has been used.

Code   Format

Code

2.5 Multiplication

The only input to enter manually in the full Time_Sheet is the hours worked by Employer and all the data will be calculated automatically.

Code for Daily_Salary   Manual Input

Daily_Salary
Calculated using
Code

[For better visual representation a Time_Sheet with dummy Data has been created.]

2.7 SUM & COUNTIF

The following Functions has been used to create the end of the day:

=COUNTIF for Staffs for amount of staffs

=SUM for used Hours total

=SUM for total
Salary of the day

2.8 Average

The following Functions has been used to create the end of the Week:

=AVERAGE has bee used to calculate an estimation of staffs who worked during the week

=SUM has been used to calculate the total Hours used during the week

The SUM formula in cell H46 shows: =SUM(H8,H14,H20,H26,H32,H39,H44)

	A	Date	Days	Emp_ID	Job_Role	Hourly_rate	Hours_Worked	Daily_Salary
25		08/10/2022	Thursday	0		£-		£-
26	TOTAL	08/10/2022	Thursday		4		27	£519.90
27		09/10/2022	Friday	101	Crew Member 2	£18.30	5	£91.50
28		09/10/2022	Friday	100	Manager	£21.50	7	£150.50
29		09/10/2022	Friday	103	Crew Member 2	£16.80	8	£134.40
30		09/10/2022	Friday	101	Crew Member 2	£18.30	6	£109.80
31		09/10/2022	Friday	0		£-		£-
32	TOTAL	09/10/2022	Friday		4		26	£486.20
33		10/10/2022	Saturday	101	Crew Member 2	£18.30	7	£128.10
34		10/10/2022	Saturday	100	Manager	£21.50	8	£172.00
35		10/10/2022	Saturday	103	Crew Member 1	£16.80	7	£117.60
36		10/10/2022	Saturday	104	Dish Washer	£15.40	8	£123.20
37		10/10/2022	Saturday	102	Head Chef	£20.50	8	£164.00
38	TOTAL	10/10/2022	Saturday		5		38	£704.90
39		11/10/2022	Sunday	100	Manager	£21.50	8	£172.00
40		11/10/2022	Sunday	101	Crew Member 2	£18.30	8	£146.40
41		11/10/2022	Sunday	103	Crew Member 1	£16.80	7	£117.60
42		11/10/2022	Sunday	102	Head Chef	£20.50	6	£123.00
43		11/10/2022	Sunday	104	Dish Washer	£15.40	8	£123.20
44	TOTAL	11/10/2022	Sunday		5		37	£682.20
45								
46	TOTAL	11/10/2022	End of Week		5		252	£3,681.00
47								

= SUM has been used to calculate the total Salary used during the week

3 Budgeting

3.1 Substruction

A Budgeting table has been created to keep track of Hours & Salary

The formula in cell H51 shows: =(H50-G46)

	A	B	C	D	E	F	G	H
31		09/10/2022	Friday	0		£-		£-
32	TOTAL	09/10/2022	Friday		4		26	£486.20
33		10/10/2022	Saturday	101	Crew Member 2	£18.30	7	£128.10
34		10/10/2022	Saturday	100	Manager	£21.50	8	£172.00
35		10/10/2022	Saturday	103	Crew Member 1	£16.80	7	£117.60
36		10/10/2022	Saturday	104	Dish Washer	£15.40	8	£123.20
37		10/10/2022	Saturday	102	Head Chef	£20.50	8	£164.00
38	TOTAL	10/10/2022	Saturday		5		38	£704.90
39		11/10/2022	Sunday	100	Manager	£21.50	8	£172.00
40		11/10/2022	Sunday	101	Crew Member 2	£18.30	8	£146.40
41		11/10/2022	Sunday	103	Crew Member 1	£16.80	7	£117.60
42		11/10/2022	Sunday	102	Head Chef	£20.50	6	£123.00
43		11/10/2022	Sunday	104	Dish Washer	£15.40	8	£123.20
44	TOTAL	11/10/2022	Sunday		5		37	£682.20
45								
46	TOTAL	11/10/2022	End of Week		5		252	£3,681.00
47								
48								
49							Budgeting	
50							Available hours	280
51							Extra Hours	28
52								
53							Salary Budget	£4,500.00
54							Extra Budget	£819.00

Available Hours Minus Used Hours

Available Salary Minus Used Salary

The first screenshot shows a spreadsheet with formula bar displaying `=(H53-H46)` for cell H54.

	A	B	C	D	E	F	G	H
31		09/10/2022	Friday		0	0	£-	£-
32	TOTAL	09/10/2022	Friday			4	26	£486.20
33		10/10/2022	Saturday	101	Crew Member 2	£18.30	7	£128.10
34		10/10/2022	Saturday	100	Manager	£21.50	8	£172.00
35		10/10/2022	Saturday	103	Crew Member 1	£16.80	7	£117.60
36		10/10/2022	Saturday	104	Dish Washer	£15.40	8	£123.20
37		10/10/2022	Saturday	102	Head Chef	£20.50	8	£164.00
38	TOTAL	10/10/2022	Saturday			5	38	£704.90
39		11/10/2022	Sunday	100	Manager	£21.50	8	£172.00
40		11/10/2022	Sunday	101	Crew Member 2	£18.30	8	£146.40
41		11/10/2022	Sunday	103	Crew Member 1	£16.80	7	£117.60
42		11/10/2022	Sunday	102	Head Chef	£20.50	6	£123.00
43		11/10/2022	Sunday	104	Dish Washer	£15.40	8	£123.20
44	TOTAL	11/10/2022	Sunday			5	37	£682.20
45								
46	TOTAL	11/10/2022	End of Week			5	252	£3,681.00
47								
48								
49							Budgeting	
50							Available hours	280
51							Extra Hours	28
52								
53							Salary Budget	£4,500.00
54							Extra Budget	£819.00

5 Creation of New Sheets

Duplicate of the Week_1 has been created to create Week_2, Week_3 & Week_4

Duplicates

6. Period Report

By the end of the 4 weeks a Period_Report Sheet has been created which has been connected the weekly sheets to retrieve and calculate the interested Data need to create charts.

6.1 Various Functions for Tables

Various functions has been used to create the Period_Report sheet, mostly used VLOOKUP to report the right data from the Weekly Sheet.

As follow the different Code for the tables:

Screenshot 1

`=VLOOKUP(Week_1!$C$8,Week_1!$C$8:$C$8,1,FALSE)`

Period rivew

	Staffs	Hours	Salary
/10/2022	5	252	£3,681.00
/10/2022	4	240	£3,295.80
/10/2022	5	232	£3,388.90
/11/2022	4	223	£3,132.30
	4	947	£13,498.00

Budgeting

	Hours		Salary		
ilable	Hours_Used	Hours_Saved	Salary_Available	Salary_Used	Salary_Saved
280	252	28	£4,500.00	£3,681.00	£819.00
280	240	40	£4,500.00	£3,295.80	£1,204.20
280	232	48	£4,500.00	£3,388.90	£1,111.10
280	223	57	£4,500.00	£3,132.30	£1,367.70
1120	947	173	£18,000.00	£13,498.00	£4,502.00

Period report

WEEK 1

Date	Day	Staffs	Hours	Salay
05/10/2022	Monday	5	34	£640.50
06/10/2022	Tuesday	5	32	£581.30
07/10/2022	Wednesday	5	32	£598.90
08/10/2022	Thursday	4	27	£519.90
09/10/2022	Friday	4	26	£486.20
10/10/2022	Saturday	5	38	£704.90
11/10/2022	Sunday	5	37	£682.20
11/10/2022	Week 1	5	252	£3,681.00

WEEK 3

Date	Day	Staffs	Hours	Salay
19/10/2022	Monday	4	24	£466.10
20/10/2022	Tuesday	4	25	£462.60
21/10/2022	Wednesday	5	30	£565.30
22/10/2022	Thursday	4	26	£498.20
23/10/2022	Friday	5	31	£571.50
24/10/2022	Saturday	5	31	£577.60
25/10/2022	Sunday	5	34	£653.20
25/10/2022	Week 3	5	232	£3,388.90

Screenshot 2

`=VLOOKUP(Week_1!E8,Week_1!E8:F8,1,FALSE)`

Period rivew

	Staffs	Hours	Salary
11/10/2022	5	252	£3,681.00
18/10/2022	4	240	£3,295.80
25/10/2022	5	232	£3,388.90
01/11/2022	4	223	£3,132.30
	4	947	£13,498.00

Budgeting

	Hours		Salary		
vailable	Hours_Used	Hours_Saved	Salary_Available	Salary_Used	Salary_Saved
280	252	28	£4,500.00	£3,681.00	£819.00
280	240	40	£4,500.00	£3,295.80	£1,204.20
280	232	48	£4,500.00	£3,388.90	£1,111.10
280	223	57	£4,500.00	£3,132.30	£1,367.70
1120	947	173	£18,000.00	£13,498.00	£4,502.00

Period report

WEEK 1

Date	Day	Staffs	Hours	Salay
05/10/2022	Monday	5	34	£640.50
06/10/2022	Tuesday	5	32	£581.30
07/10/2022	Wednesday	5	32	£598.90
08/10/2022	Thursday	4	27	£519.90
09/10/2022	Friday	4	26	£486.20
10/10/2022	Saturday	5	38	£704.90
11/10/2022	Sunday	5	37	£682.20
11/10/2022	Week 1	5	252	£3,681.00

WEEK 3

Date	Day	Staffs	Hours	Salay
19/10/2022	Monday	4	24	£466.10
20/10/2022	Tuesday	4	25	£462.60
21/10/2022	Wednesday	5	30	£565.30
22/10/2022	Thursday	4	26	£498.20
23/10/2022	Friday	5	31	£571.50
24/10/2022	Saturday	5	31	£577.60
25/10/2022	Sunday	5	34	£653.20
25/10/2022	Week 3	5	232	£3,388.90

Screenshot 3

`=VLOOKUP(Week_1!$G$8,Week_1!$G$8:$H$8,1,FALSE)`

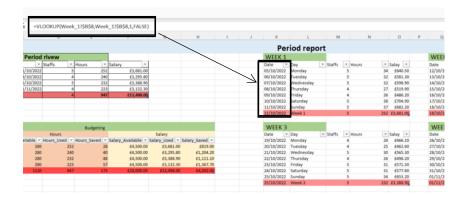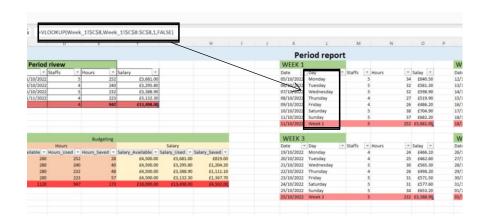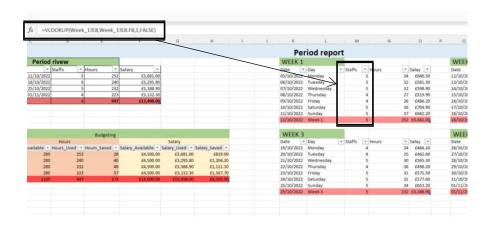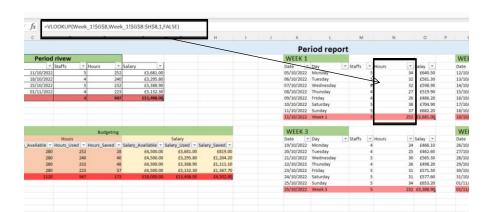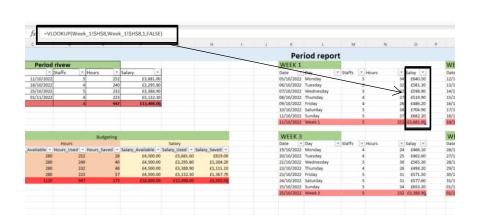### Period rivew

	Staffs	Hours	Salary
11/10/2022	5	252	£3,681.00
18/10/2022	4	240	£3,295.80
25/10/2022	5	232	£3,388.90
01/11/2022	4	223	£3,132.30
	4	947	£13,498.00

Budgeting

	Hours		Salary		
Available	Hours_Used	Hours_Saved	Salary_Available	Salary_Used	Salary_Saved
280	252	28	£4,500.00	£3,681.00	£819.00
280	240	40	£4,500.00	£3,295.80	£1,204.20
280	232	48	£4,500.00	£3,388.90	£1,111.10
280	223	57	£4,500.00	£3,132.30	£1,367.70
1120	947	173	£18,000.00	£13,498.00	£4,502.00

Period report

WEEK 1

Date	Day	Staffs	Hours	Salay
05/10/2022	Monday		34	£640.50
06/10/2022	Tuesday		32	£581.30
07/10/2022	Wednesday		32	£598.90
08/10/2022	Thursday	4	27	£519.90
09/10/2022	Friday		26	£486.20
10/10/2022	Saturday	5	38	£704.90
11/10/2022	Sunday		37	£682.20
11/10/2022	Week 1	5	252	£3,681.00

WEEK 3

Date	Day	Staffs	Hours	Salay
19/10/2022	Monday		24	£466.10
20/10/2022	Tuesday	4	25	£462.60
21/10/2022	Wednesday	5	30	£565.30
22/10/2022	Thursday	4	26	£498.20
23/10/2022	Friday	5	31	£571.50
24/10/2022	Saturday	5	31	£577.60
25/10/2022	Sunday	5	34	£653.20
25/10/2022	Week 3	5	232	£3,388.90

Screenshot 4

`=VLOOKUP(Week_1!$H$8,Week_1!$H$8,1,FALSE)`

Period rivew

	Staffs	Hours	Salary
11/10/2022	5	252	£3,681.00
18/10/2022	4	240	£3,295.80
25/10/2022	5	232	£3,388.90
01/11/2022	4	223	£3,132.30
	4	947	£13,498.00

Budgeting

	Hours		Salary		
Available	Hours_Used	Hours_Saved	Salary_Available	Salary_Used	Salary_Saved
280	252	28	£4,500.00	£3,681.00	£819.00
280	240	40	£4,500.00	£3,295.80	£1,204.20
280	232	48	£4,500.00	£3,388.90	£1,111.10
280	223	57	£4,500.00	£3,132.30	£1,367.70
1120	947	173	£18,000.00	£13,498.00	£4,502.00

Period report

WEEK 1

Date	Day	Staffs	Hours	Salay
05/10/2022	Monday	5	34	£640.50
06/10/2022	Tuesday		32	£581.30
07/10/2022	Wednesday	5		£598.90
08/10/2022	Thursday	4		£519.90
09/10/2022	Friday		26	£486.20
10/10/2022	Saturday	5	38	£704.90
11/10/2022	Sunday	5	37	£682.20
11/10/2022	Week 1	5	252	£3,681.00

WEEK 3

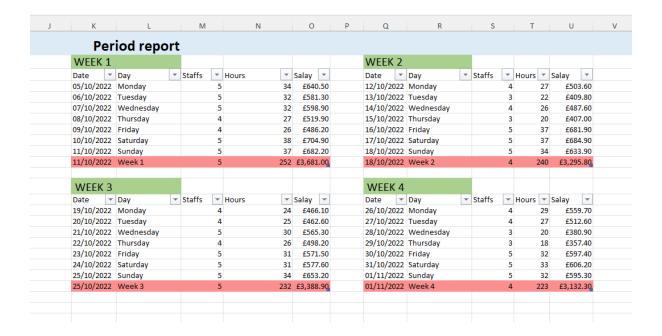| Date	Day	Staffs	Hours	Salay
19/10/2022	Monday	4	24	£466.10
20/10/2022	Tuesday	4	25	£462.60
21/10/2022	Wednesday	5	30	£565.30
22/10/2022	Thursday	4	26	£498.20
23/10/2022	Friday	5	31	£571.50
24/10/2022	Saturday	5	31	£577.60
25/10/2022	Sunday	5	34	£653.20
25/10/2022	Week 3	5	232	£3,388.90

6.2 Weekly Tables

The same procedures has been done for the tables of WEEK 1, WEEK 2, WEEK 3 & WEEK 4.

Period report

WEEK 1

Date	Day	Staffs	Hours	Salay
05/10/2022	Monday	5	34	£640.50
06/10/2022	Tuesday	5	32	£581.30
07/10/2022	Wednesday	5	32	£598.90
08/10/2022	Thursday	4	27	£519.90
09/10/2022	Friday	4	26	£486.20
10/10/2022	Saturday	5	38	£704.90
11/10/2022	Sunday	5	37	£682.20
11/10/2022	Week 1	5	252	£3,681.00

WEEK 2

Date	Day	Staffs	Hours	Salay
12/10/2022	Monday	4	27	£503.60
13/10/2022	Tuesday	3	22	£409.80
14/10/2022	Wednesday	4	26	£487.60
15/10/2022	Thursday	3	20	£407.00
16/10/2022	Friday	5	37	£681.90
17/10/2022	Saturday	5	37	£684.90
18/10/2022	Sunday	5	34	£633.90
18/10/2022	Week 2	4	240	£3,295.80

WEEK 3

Date	Day	Staffs	Hours	Salay
19/10/2022	Monday	4	24	£466.10
20/10/2022	Tuesday	4	25	£462.60
21/10/2022	Wednesday	5	30	£565.30
22/10/2022	Thursday	4	26	£498.20
23/10/2022	Friday	5	31	£571.50
24/10/2022	Saturday	5	31	£577.60
25/10/2022	Sunday	5	34	£653.20
25/10/2022	Week 3	5	232	£3,388.90

WEEK 4

Date	Day	Staffs	Hours	Salay
26/10/2022	Monday	4	29	£559.70
27/10/2022	Tuesday	4	27	£512.60
28/10/2022	Wednesday	3	20	£380.90
29/10/2022	Thursday	3	18	£357.40
30/10/2022	Friday	5	32	£597.40
31/10/2022	Saturday	5	33	£606.20
01/11/2022	Sunday	5	32	£595.30
01/11/2022	Week 4	4	223	£3,132.30

6.3 Period Review

The Period Review table has been created with VLOOKUP & Various calculations to retrieve the relevant data.

(Download and check the full Excel file to check full codes)

C4   =VLOOKUP(K11,K11,1,FALSE)

Period rivew

Week	Date	Staffs	Hours	Salary
Week 1	11/10/2022	5	252	£3,681.00
Week 2	18/10/2022	4	240	£3,295.80
Week 3	25/10/2022	5	232	£3,388.90
Week 4	01/11/2022	4	223	£3,132.30
TOTAL		4	947	£13,498.00

6.4 Budgeting Table

The Budgeting table has been created with VLOOKUP and various calculations to retrieve the relevant data.

(Download and check the full Excel file to check full codes)

		Budgeting				
		Hours			Salary	
Column1	Hours_Available	Hours_Used	Hours_Saved	Salary_Available	Salary_Used	Salary_Saved
Week 1	280	252	28	£4,500.00	£3,681.00	£819.00
Week 2	280	240	40	£4,500.00	£3,295.80	£1,204.20
Week 3	280	232	48	£4,500.00	£3,388.90	£1,111.10
Week 4	280	223	57	£4,500.00	£3,132.30	£1,367.70
Total	1120	947	173	£18,000.00	£13,498.00	£4,502.00

7 Dashboard

A Period_Chart sheet has been created with relevant charts to analyse the period.