Conestoga College

Business Analytics – 1521

INFO 8146 -W24 -Sec5

Diagnostic Analysis

Case Study – 1

Vats Sanghvi

(8923105)

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Cover Letter

To:

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Diagnostics Analytics
Conestoga College
Doon Campus

From:

Vats Sanghvi

Team 6

Business Analytics 24-W Section 1

Conestoga College

Doon Campus

Re: Submission of Case study 1 on Call Centre Data set.

Respected Prof Mohamed,

      In this case study, I have created an Individual Workbook in which I have created various sheets which I have mentioned below:

- ReadMeFirst
- Deliverables
- Modes
- DS Inspection
- AreaCodes
- Other Data
- Greeters DM
- Places
- CSR DM
- PT Busy-ness

We were expected to extract the data from the Access workbook provided and recognize the foreign keys along with the cell reference using formulas.

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Section of the Document:

- Cover Page
- Guided Tour
- Statement of Academic Integrity

Documents Attached:

- PDF Document: CS 1 8923105 Person-3.pdf
- Excel Workbook: CS 1 8923105 Person-3.xlsx
- Master Workbook Team 6.xlsx

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Requirements – 12 to 12.4

Identifying Modes:

The "NY-T-CustServsID" support table was imported into this section from the Access file. This table includes the "Modes" linked to the agent "CSR". After importation, the other columns that were not going to be used were removed, leaving only the "Modes" linked to this agent. The "Vlookup" function was used to generate the headers from the "Modes" file description.

Figure: Sample of the Data

The table can be found in CS 1 8923105 Person-3.xlsx,"CSR DM"

Requirements 13 through 13.9:

Create columns for your agent's calculation on each day and shift. This section developed all the formulas pertaining to the agent's occupation. New columns were added at the end of the original table, together with the formulas and supporting information for each one. The field that held the formulas were colored differently than in the original table.

The professor's "Digital PBX Config Dec 4, 2016, + Busy-ness Guidance" document served as an example for developing the formulas.

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The columns mentioned below were produced:

- Busy-ness seconds
- Busy-ness HRs
- Year
- Month
- Season
- Weekday
- Calculations

Figure: Calculations Sheet

Part 1 =I10*K10+L10*(M10+P10+Q10)	Part 2 =R10*S10+T10*U10	Part 3 =L10*(V10+W10)+(N10*O10)	Busy-ness Secs =AN10+AO10+AP10	Busy-ness HRs =AQ10/60/60	Year =YEAR(C10)	Month =MONTH(C10)	Season =INT((AT10+2)/3)	Weekday =WEEKDAY(C10)
3834	13	1798	5645	1.568055556	2023	6	2	5
3597	24	1772	5393	1.498055556	2023	6	2	5
4534	22	1494	6050	1.680555556	2023	6	2	6
3147	17	2318	5482	1.522777778	2023	6	2	6
2900	32	2011	4943	1.373055556	2023	6	2	7
3460	10	1701	5171	1.436388889	2023	6	2	2
2956	18	1636	4610	1.280555556	2023	6	2	2
3807	38	1348	5193	1.4425	2023	6	2	3
3522	13	1798	5333	1.481388889	2023	6	2	3
3873	24	1772	5669	1.574722222	2023	6	2	4
4190	22	1494	5706	1.585	2023	6	2	4
3323	17	2318	5658	1.571666667	2023	6	2	5
2760	32	2011	4803	1.334166667	2023	6	2	5
3460	10	1701	5171	1.436388889	2023	6	2	6
2956	18	1636	4610	1.280555556	2023	6	2	6
3807	38	1348	5193	1.4425	2023	6	2	7
3834	13	1798	5645	1.568055556	2023	6	2	2
3597	24	1772	5393	1.498055556	2023	6	2	2
4534	22	1494	6050	1.680555556	2023	6	2	3
3147	17	2318	5482	1.522777778	2023	6	2	3
2900	32	2011	4943	1.373055556	2023	6	2	4
3252	10	1701	4963	1.378611111	2023	6	2	4
3132	18	1636	4786	1.329444444	2023	6	2	5
3563	38	1348	4949	1.374722222	2023	6	2	5
3834	13	1798	5645	1.568055556	2023	6	2	6
3597	24	1772	5393	1.498055556	2023	6	2	6
4534	22	1494	6050	1.680555556	2023	6	2	7
3323	17	2318	5658	1.571666667	2023	6	2	2
2760	32	2011	4803	1.334166667	2023	6	2	2
3532	40	2146	5718	1.588333333	2023	6	2	3
3211	20	2007	5238	1.455	2023	6	2	3
3617	14	1259	4890	1.358333333	2023	6	2	4
3941	48	1039	5028	1.396666667	2023	6	2	4
4368	23	2325	6716	1.865555556	2023	6	2	5
2985	34	1970	4989	1.385833333	2023	6	2	5
3244	22	1218	4484	1.245555556	2023	6	2	6
2832	10	1173	4015	1.115277778	2023	6	2	6
3532	40	2146	5718	1.588333333	2023	6	2	7
3423	20	2007	5450	1.513888889	2023	6	2	2
3337	14	1259	4610	1.280555556	2023	6	2	2
4289	48	1039	5376	1.493333333	2023	6	2	3
4056	23	2325	6404	1.778888889	2023	6	2	3

The table can be found in CS 1 8923105 Person-3.xlsx,"CSR DM"

Requirements 14.8 to 15.1

In this section Pivot tables were created to summarize the occupation times of the "CSR" agent. To carry out this analysis, the table that contained the "Modes" associated with this agent was selected, then the "PivotTable" was created, the year and month were selected as rows and the "Season" as filter. As for the values we have count, minimum, maximum and average for Busy-ness Hrs. Furthermore, I generated 4 pivot tables which were filtered out for each Season number.

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Season	1	▼		

Row Labels ▼	Count of Busy-ness HRs	Min of Busy-ness HRs2	Max of Busy-ness HRs3	Average of Busy-ness HRs4
⊟ 2024	143	1.191111111	2.349166667	1.77509324
1	50	1.339166667	2.288611111	1.760738889
2	46	1.44	2.349166667	1.770917874
3	47	1.191111111	2.116388889	1.794450355
Grand Total	143	1.191111111	2.349166667	1.77509324

Season	2	▼		

Row Labels ▼	Count of Busy-ness HRs	Min of Busy-ness HRs2	Max of Busy-ness HRs3	Average of Busy-ness HRs4
⊟ 2023	48	1.115277778	1.865555556	1.459236111
6	48	1.115277778	1.865555556	1.459236111
⊟ 2024	143	1.369722222	2.239444444	1.787099845
4	48	1.369722222	2.163611111	1.751180556
5	50	1.3975	2.153333333	1.773672222
6	45	1.406388889	2.239444444	1.840333333
Grand Total	191	1.115277778	2.239444444	1.70470477

Pivot Table for Season: 1,2

Season	3	▼		

Row Labels	▼	Count of Busy-ness HRs	Min of Bus	Max of Busy-ness HRs3
⊟ 2023		144	1.186111	2.233055556
7		47	1.186111	2.233055556
8		50	1.273611	2.183611111
9		47	1.439722	2.008888889
⊟ 2024		99	1.250278	2.266944444
7		50	1.449444	2.266944444
8		49	1.250278	2.160555556
Grand Total		243	1.186111	2.266944444

Season	4	▼		

Row Labels	▼	Count of Busy-ness HRs	Min of Bus	Max of Busy-ness HRs3
⊟ 2023		143	1.259167	2.271111111
10		48	1.304722	2.106111111
11		48	1.259167	2.271111111
12		47	1.491944	2.258888889
Grand Total		143	1.259167	2.271111111

Pivot Table for Season: 3,4
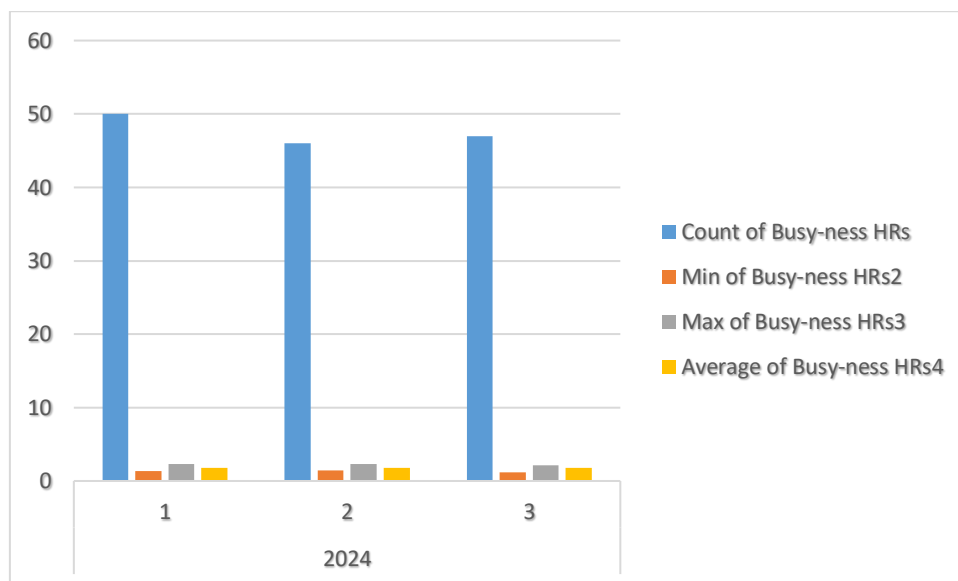
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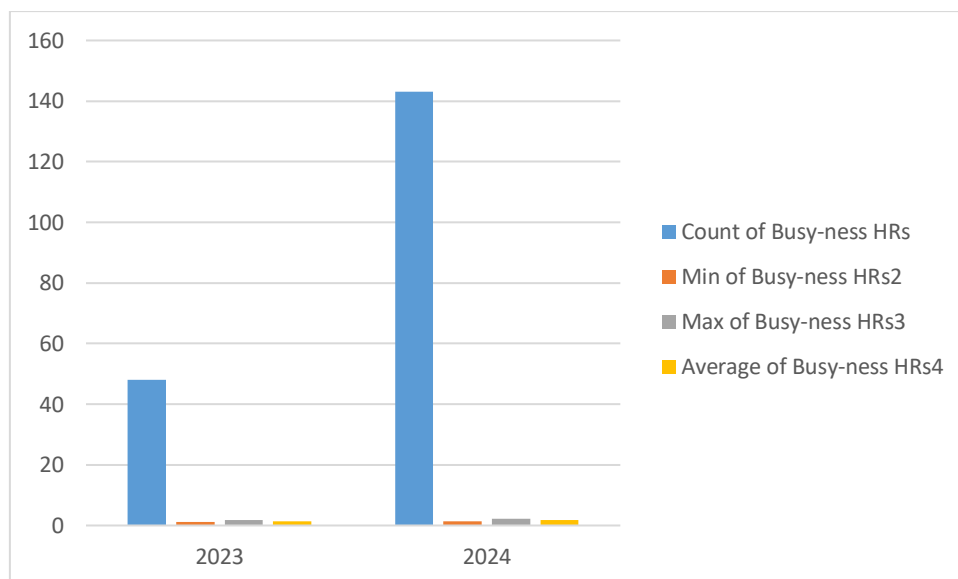

Figure: Chart for Season 1

Figure: Chart for Season 2
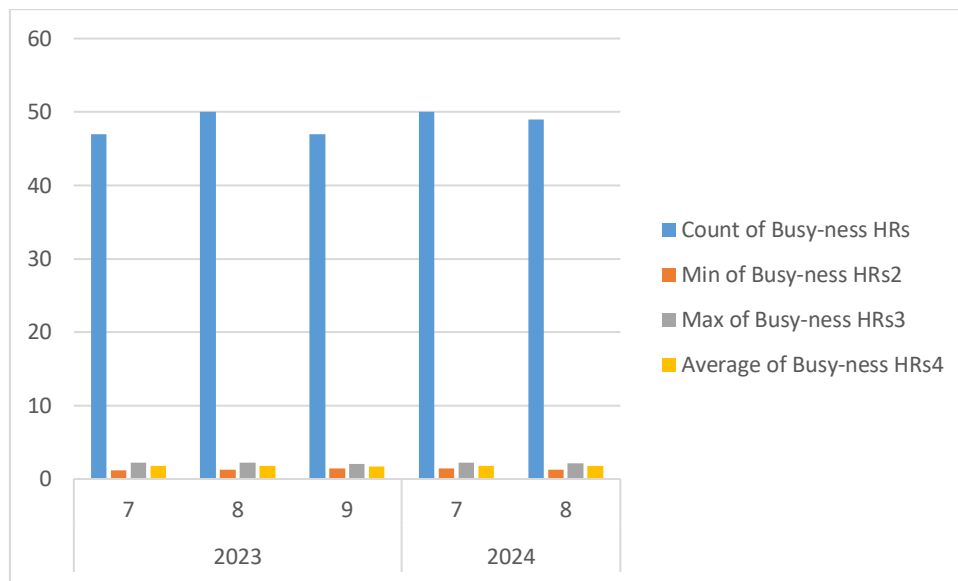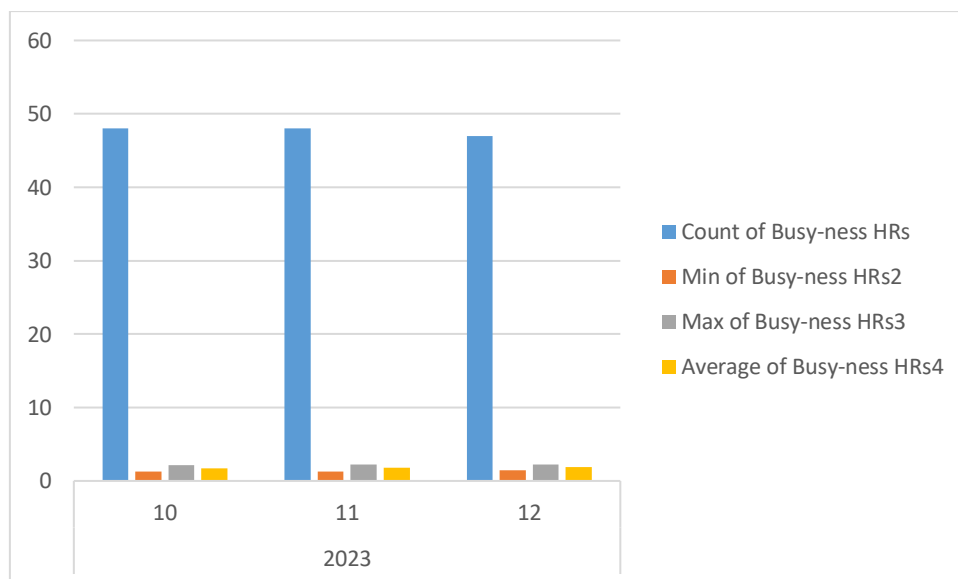
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Figure: Chart for Season 3

Figure: Chart for Season 4

STATEMENT OF COMMITMENT TO ACADEMIC INTEGRITY

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- I confirm I will not access any unauthorized resources while completing this assessment.

By signing this form, I affirm my agreement to the above statements.

VATS
Student Signature Date

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REFRENCES

Library & Learning Services: Academic Integrity: Statement of Commitment. (2024). Conestogac.on.ca. https://lib.conestogac.on.ca/academic-integrity/statement-of-commitment