Digital revolution for Pet clinic

Name of the Student

Name of the university

Authors note

# Task 1

Quality Veterinary Hospital provides pet care through two vegetarians (Archie and Bakari) and one administrative staff Cynthia. The employees work in different shifts as mentioned below, Archie 6.5 hours on every Mondays, Wednesdays and Fridays; veterinarian Bakari works 6.5 hours on Tuesdays and Thursdays; and finally, Cynthia works 3.5 hours on all weekdays. In order to calculate the cost, the five weekdays as working days are considered. Following table depicts the total cost for the clinic;

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Day Count** | **Shifthours** | **Shift Hours Every Week** | **Cost/hour** | **Cost/Week** |
| **Archie** | **3** | **6.5** | **19.5** | **45** | **877.5** |
|  |  |  | **0** |  | **0** |
| **Bakari** | **2** | **6.5** | **13** | **38** | **494** |
|  |  |  | **0** |  | **0** |
| **Cynthia** | **5** | **3.5** | **17.5** | **30** | **525** |
|  |  |  |  |  | **0** |
|  |  |  |  |  | **0** |
| **Cost for Replacement worker for Vet Archie and Bakari 49/month** |  |  | **32.5** | **49** | **1592.5** |
|  |  |  |  |  | **0** |
| **Cost for Replacement worker for Staff Cynthia 39/month** |  |  | **17.5** | **39** | **682.5** |
|  |  |  |  |  |  |
| **Total Cost for Replacement worker** |  |  |  |  | **2275** |
| **Annual LABOUR cost** |  |  |  |  |  |
| **Archie** | **45630** |  |  |  |  |
|  |  |  |  |  |  |
| **Bakari** | **25688** |  | **Required Income for every Month** | 10731.83 |  |
|  |  |  |  |  |  |
| **Cynthia** | **27300** |  | **Insurance Cost** | **16384** |  |
|  |  |  |  |  |  |
| **Replaement Worker** | **9100** |  | **Utlity cost 390/month** | **4680** |  |
|  |  |  |  |  |  |
| **Total Wage Cost** | **107718** |  |  |  |  |
|  |  |  | **Total Operational Cost** | **128782** |  |
|  |  |  |  |  |  |
|  |  |  |  |  |  |

From the above table it can be stated that total operational cost is $128782. For covering all the operational cost, the required income/month is $10732.

In case the both vets are costs at $45 and clinic closed on Fridays then, the cost will be

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Name** | **Day Count** | **Shifthours** | **Shift Hours Every Week** | **Cost/hour** | **Cost/Week** |
| **Archie** | **2** | **6.5** | **13** | **45** | **585** |
|  |  |  | **0** |  | **0** |
| **Bakari** | **2** | **6.5** | **13** | **45** | **585** |
|  |  |  | **0** |  | **0** |
| **Cynthia** | **4** | **3.5** | **14** | **30** | **420** |
|  |  |  |  |  | **0** |
|  |  |  |  |  | **0** |
| **Cost for Replacement worker for Vet Archie and Bakari 49/month** |  |  | **26** | **49** | **1274** |
|  |  |  |  |  | **0** |
| **Cost for Replacement worker for Staff Cynthia 39/month** |  |  | **14** | **39** | **546** |
|  |  |  |  |  |  |
| **Total Cost for Replacement worker** |  |  |  |  | **1820** |
| **Annual LABOUR cost** |  |  |  |  |  |
| **Archie** | **30420** |  |  |  |  |
|  |  |  |  |  |  |
| **Bakari** | **30420** |  | **Required Income for every Month** | 9252 |  |
|  |  |  |  |  |  |
| **Cynthia** | **21840** |  | **Insurance Cost** | **16384** |  |
|  |  |  |  |  |  |
| **Replaement Worker** | **7280** |  | **Utility cost 390/month** | **4680** |  |
|  |  |  |  |  |  |
| **Total Wage Cost** | **89960** |  |  |  |  |
|  |  |  | **Total Operational Cost** | **111024** |  |

Total operational cost is $111024.

# Task 2

In order to get the information about the animal type that have fewest emergency visits overall, the following plot is generated;

Here, it can be stated that Hamster and Rabbit has the lowest number of emergency visits where as Dogs have the highest amount of emergency visits.

For the discount day check-up, from the historical data the following plot is generated to fin out on which day there are highest or minimum amount of emergency cases for dogs are recorded.

From the above plot, it is clear that on Wednesdays and Thursdays there are lowest number of emergency records.

# Task 3

For the visits from different animals the following plot is created.

The plot clearly depicts that highest number of visits are from Dogs and cat owners and lowest number of visits are from birds and Hamsters.

Time wise the consultation for the clinic is plotted below;

Here, it can be stated that highest amount of consultation fee is calculated in November month and minimum is recorded December.

In the last pie plot, the comparison between the two veterinarians are plotted.

From the above plot, it is clearly visible that 60% of the total consultation fee is generated by Archie.

# Task 4

As there are multiple types of animals as well as consultation types in the clinic thus for the administrative staff it becomes complex to calculate or quote the fees/price. For the same the excel built in functions are used to create a table that automates the process.

|  |  |  |  |
| --- | --- | --- | --- |
| SELECT ANIMAL TYPE | dog |  |  |
|  |  | PROJECTED PRICE | 169.00 |
|  |  |  |  |
| SELECT CONSULTATION TYPE | other |  |  |
|  |  |  |  |

As depicted above, the users will be able to select the animal type and consultation type from the green marked cell. When these are selected the projected quote will be depicted in the grey marked cell. For creation of the table, the AVERAGEIFS function is used that helps in providing an average price value depending on the selected criterions.

# Task 5

In order to improve the consultation and overall process the following swim-lane diagram is created that can be followed by the staffs.

