**Constraints for Project**

**Group 51**

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**Paragraph 1**

* Overlapping Constraint satisfied as a **User** can be a **Pet Owner** and **Care Taker** at the same time
* Each **User** can be identified by their User ID **(UID),** and the **Area** he lives at, **Name, Date of Birth,** **email and Password** must be recorded.
* Each **Care Taker** will have their **rating** recorded down.

**Paragraph 2**

* Each **Pet** can be identified by their Pet ID **(PID),** and their **category**, **name**, **gender** must be recorded.
* Each **Pet Owner** can own any number of **Pets**
* Each **Pet** has any number of **special requirements** related to how they are **required** to be taken care of.
* Each **Special Care** note can be identified by the **care** required.
* When a **Pet Owner** account is deleted, **Pets** that the **Pet Owner** owns will be deleted as well.

**Paragraph 3**

* All **Care Taker** can specify their availability and it will be reflected in their **Calendar**.
* All **Pets** that a **Care Taker** can take care of are specified and the number of **Pets** that they are caring for is recorded.
* Each **Care Taker** can take care of a specific category of pets when they are available.
* The list of pets they **Can Take Care** of has to be in the **All Domestic Pets** table.
* The **Calendar**, which entries can be identified by the **date,** notes down the availability of the **Care Taker.**
* Each **Care Taker** can be checked if he is available to take care of a pet on any day before a **Pet Owner** **Bids** for his services.

**Paragraph 4**

* Each **Bid** for a **Pet** is made **From** a **Pet Owner.**
* The **Bid**  is made **For** the services of a **Care Taker.**
* Each **Bid** can be identified by their Bid ID **(BID)**, and the Pet ID **(Pet ID), User ID of Pet Owner (POID)**, **User ID of Care Taker (CTID)**, **bid time (datetime when the bid is made), starting date** and **end date of care period** when the bid was made must be recorded down.
* Each **Order** can only be successful from a **Bid** if the **Care Taker** is available from the **Starting date** to **End date** of the **Bid** and there is no existing **Bid** with the same **Pet ID** and overlapping Care Period (Example: Assuming every Care Taker is available, If PetOwner1 already made a bid for CareTaker1 to take care of Pet1 from 20/09/2020 - 25/09/2020, he cannot make a bid for any other Care Taker to take care of Pet1 from 23/09/2020 - 26/09/2020 because there are overlapping dates).
* The criteria to whether a **Pet Owner’s bid** is successful depends if at the point of time when he **bids**, the **Care Taker** is still **available** within the **Start date** and **End date** of the care period.
* A **Pet Owner** can only make a **Bid** with a **Starting date** starting after the current date today.
* Once an **Order** is created, the **Pet Owner** and **Care Taker** can agree on the **mode of transfer** for the **Pet** (**Pet** **Owner** deliver, **Care Taker** pick up, Transfer through the physical building of PCS).

**Paragraph 5**

* Each **Pet Owner** can write a **Review** for the service of the **Care Taker** after the care period.
* Each **Review** can be identified by their Review ID **(RID)**, and the **rating (out of 5)** for the service, **comments, pet category** and **Starting date** and **End date** of the **care period (can ref from Bid)** must be recorded down.
* Each **Order**  can be identified by their Order ID **(OID)** which is the same as the **Bid ID (BID),** and the **Pet Transfer Mode,** **mode of payment, cost of order, discount code, Credit Card number, Pet Owner ID (POID) and Care Taker ID (CTID)** must be recorded.
* Change to: After a **Bid** is **finalized**, an **Order** will be made. Otherwise, we assume that the **Bid** is not **finalized** and thus cancelled.

**Paragraph 6**

* Covering Constraint satisfied for **Care Taker** as every **Care Taker** has to be either a **Full-time** or **Part-time** employee.
* Each **Full-time** **Care Taker** can only take **leave** if he/she is available to work for a minimum of 2 × 150 consecutive days a year.
* When a **Care Taker** is on leave, it will be reflected in their **Availability** and **Leave Status**
* A **Care Taker** can only take leave if his/her **pet count** for that **Date** is 0.
* A **Full-time** **Care Taker** can take care of at most 5 Pets at any one time. This is enforced through their **Pet Count** attribute under **Availability**
* A **Full-time** **Care Taker** will always accept a job if they are available, this can be a bidding acceptance criteria under **Bids**, where the earliest bid made will be the successful one.

**Paragraph 7**

* A **Part-time** **Care Taker** can only specify their availability for the current year and the next year.
* A **Part-time Care Taker** is assumed to be taking a leave if he chooses not to be available on any day that he specified.
* A **Part-time Care Taker** is considered a good care-taker if he has a **rating** of at least 4 out of 5.
* If a **Part-time Care Taker** is a good Care-taker, he can take care of up to 5 **Pets** in any day. If he isn’t a good **Care Taker**, he can only take care of up to 2 **Pets**.

**Paragraph 8**

* Each **PCS Administrator** can be identified by their admin ID **(AID),** and records down the **specified price** for **Care Taker** according to their **rating**.
* A **PCS Administrator** specifies the **base daily price** the Pet Owner need to pay for the services of a **Full-time** **Care Taker** through the specified price attribute.
* The Base Daily **Specified Price** for a **Full-time Care Taker** is specified as shown below according to their rating:

1. Rating lesser than 4 -> $100/ day
2. Rating at least 4 but less than 4.5 -> $125/ day
3. Rating at least 4.5 -> $150/ day

* The Base Daily **Specified Price** for a **Part-time Care Taker** is specified as shown below according to their rating:

1. Rating lesser than 4 -> $50/ day
2. Rating at least 4 but less than 4.5 -> $75/ day
3. Rating at least 4.5 -> $100/ day

* The price for a **Care Taker** cannot go below their specified base price
* The salary of a **Care Taker** depends on how many **Pets** are taken care of for how many days in a month(pet-day).
* A **Full-time Care Taker** will receive a salary of $3000 per month for up to 60 pet-day. For any excess pet-day, they will receive 80% of their price as bonus.
* For **Part-time Care Taker**, the PCS will take 25% of their price as payment (The remaining 75% will be received by the part-time **Care Taker**).

ER Diagram

