Group 6

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1) Class Diagrams

Class Diagram

SCHEDULING LAB CLASS DIAGRAMS
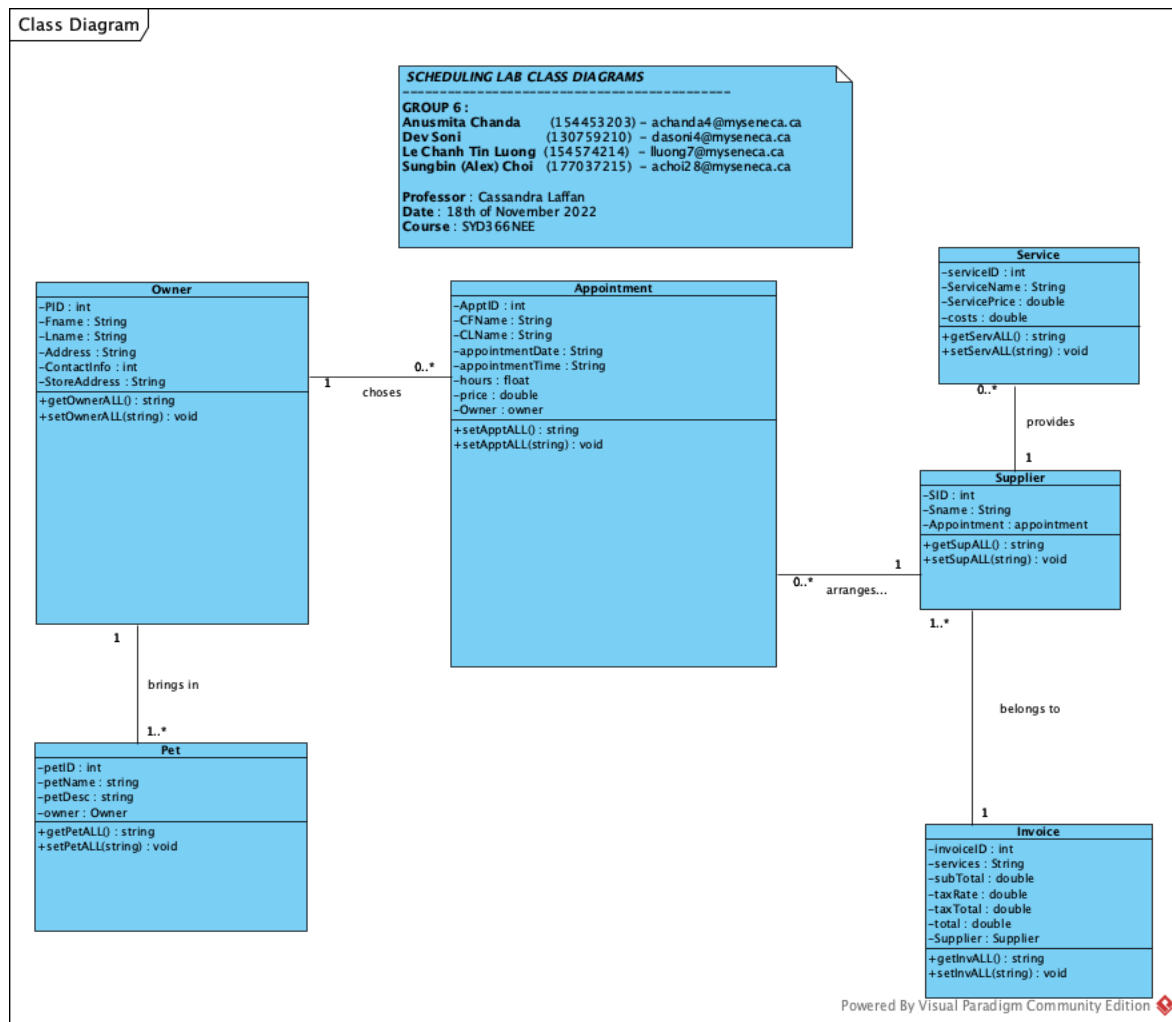---
GROUP 6 :
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Professor : Cassandra Laffan
Date : 18th of November 2022
Course : SYD366NEE

Owner
- -PID : int
- -Fname : String
- -Lname : String
- -Address : String
- -ContactInfo : int
- -StoreAddress : String
- +getOwnerALL() : string
- +setOwnerALL(string) : void

Appointment
- -ApptID : int
- -CFName : String
- -CLName : String
- -appointmentDate : String
- -appointmentTime : String
- -hours : float
- -price : double
- -Owner : owner
- +setApptALL() : string
- +setApptALL(string) : void

Service
- -serviceID : int
- -ServiceName : String
- -ServicePrice : double
- -costs : double
- +getServALL() : string
- +setServALL(string) : void

Supplier
- -SID : int
- -Sname : String
- -Appointment : appointment
- +getSupALL() : string
- +setSupALL(string) : void

Pet
- -petID : int
- -petName : string
- -petDesc : string
- -owner : Owner
- +getPetALL() : string
- +setPetALL(string) : void

Invoice
- -invoiceID : int
- -services : String
- -subTotal : double
- -taxRate : double
- -taxTotal : double
- -total : double
- -Supplier : Supplier
- +getInvALL() : string
- +setInvALL(string) : void

1 — choses — 0..*

0..* — provides — 1

1 — arranges... — 0..*

1..* — belongs to — 1

1 — brings in — 1..*

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2) Controllers

Controllers

UI Controller
+addAppt() : void
+DispListOwner() : void
+chooseOwner() : int PID
+addDate(int PID) : void
+DispListAppt() : void
+addTime(PID, date) : void
+DispListPet() : void
+choosePet() : int petID
+DispListServi() : serviceID
+chooseServ() : serviceID
+PromptChangeAddSave() : int
+SaveAppt(ApptID) : void
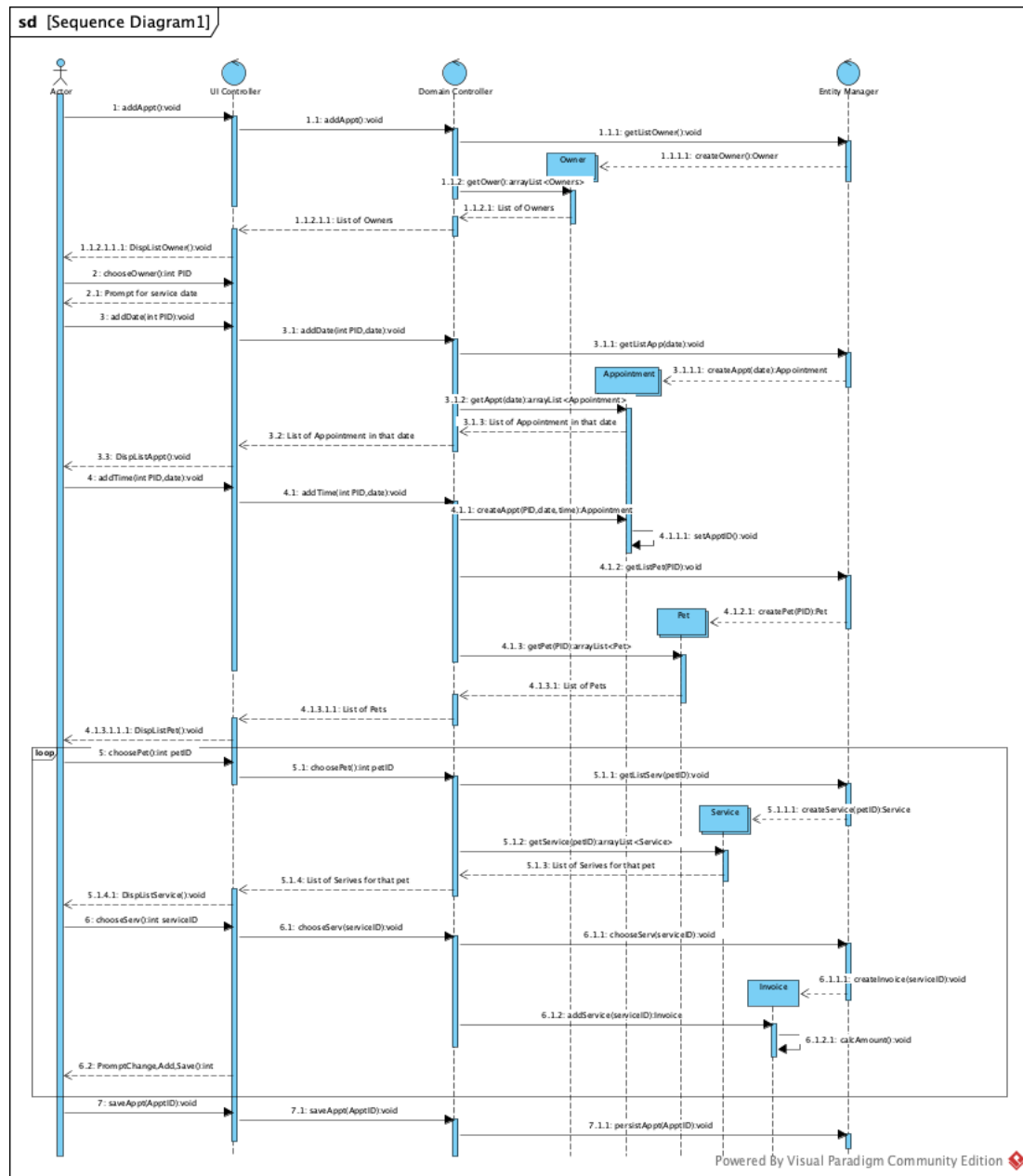+addDate(PID, date) : void

Domain Controller
+getOwner() : arrayList<Owner>
+getListOwner() : void
+getAppt(date) : arrayList<Appointment>
+createAppt(PID, date, time) : Appointment
+getPet(PID) : arrayList<Pet>
+getListServ(petID) : void
+getService(petID) : arrayList<Service>
+chooseServ(serviceID) : void
+addService(serviceID) : Invoice
+persistAppt(ApptID) : void

Entity Manager
+createOwner() : Owner
+createAppt(date) : Appointment
+setApptID() : void
+createPet(PID) : Pet
+createService(petID) : Service
+createInvoice(serviceID) : void
+calcAmount() : void
+persistAppt(ApptID) : void

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3) Sequence Diagrams

sd [Sequence Diagram1]

4) Class Header File

```
/*
 -----GROUP 6 - INFORMATION-----
SCHEDULING LAB

 NAME :
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 DATE - 18 NOV 2022
 PROFESSOR - CASSANDRA LAFFAN
 COURSE - SYD366NEE
 */

// HEADER FILE FOR SCHEDULING - CLASS DIAGRAM.
#pragma once

#ifndef SCHEDULE_H_  // Conditional Header file Statements
#define SCHEDULE_H_

#include <stdio.h>  // Standard Header Libraby for the program.

// All the class definitions will be here.

class Owner  // Owner Class.
{
        int PID;  // This will store the Owner ID onto it.
        char* Fname;  // For the first name of the owner.
        char* Lname;  // For the last name of the owner.
        char* Address;  // For the address of the owner.
        char* ContactInfo;  // For the contact info of the owner.
        char* StoreAddress;  // For the store location of the owner.

public:
        +getOwnerALL() : string   //get all private variables into a string
        +setOwnerALL(string) : void       //set all private variable in a string

};

class Appointment  // Appointment Class.
{
        int ApptID;  // For storing the appointment ID.
        char* CFName;  // For storing the consumer first name.
        char* CLName;  // For storing the consumer last name.
        int appointmentDate;  // For appointment dates storage.
        int appointmentTime;  // For appointment time storage.
        float hours;   // For appointment duration.
        double price;   // For appointment price.
        Owner* owner;  // Reference to the Owner class.

public:
        +getApptALL() : string    //get all private variables into a string
        +setApptALL(string) : void        //set all private variable in a string


};

class Supplier  // Supplier Class..
{
        int SID;  // To store the supplier ID by the user.
        char* Sname;  // To store the Supplier name.
        char* Service;   // To store the service specified by the user.
        int costs;  // The net cost variable.
        Invoice* invoice;  // Reference to Invoice Class.

public:
        +getSupALL() : string     //get all private variables into a string
        +setSupALL(string) : void//set all private variable in a string
};

class Invoice  // Invoice Class...
{
        char* services;  // Service stored onto this variable.
        float subtotal;  // To store the subtotal mentioned in the invoice.
        float taxrate;  // To store the tax rate by the government ( HST, GST, ..)
        float taxtotal;  // To store the total tax mentioned at the end of the invoice.
        float total;  // To store the net amount on the invoice.

public:
        +getInvALL() : string     //get all private variables into a string
        +setinvALL(string) : void//set all private variable in a string
};

#endif
```

5) UIController Header File

```
/*
 -----GROUP 6 - INFORMATION-----
SCHEDULING LAB (INCLASS) :-

 NAME :
 Soni Dev Alpeshbhai (130759210) - dasoni4@myseneca.ca
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 COURSE - SYD366NEE
 */

// HEADER FILE FOR SCHEDULING - UI CONTROLLER.

#ifdef UI_CONTROLLER_H    // Conditional Header Commands to the console.
#ifndef UI_CONTROLLER_H

#include <stdio.h> // Standard Library...


class UIControl{

    private:
        const int apptID, suppID; // to store the appartment ID and supply ID.
        char* apptDate;  // to store the application Date.
        char* suppTime;  // To store the suppy Time
        float hours;    // To store the hours mentioned by the user.
        double price;   // To store the price estimated in the invoice.

// Functionalities for this program...
    public:
        void addAppt();  // This functionality will add the Appointment by the user.
        void DispListSuppliers() const;  // To display and show the list of Suppliers from the Entity Manager.
        void chooseSupp();  // This will help the user to choose a specific Supplier from the list of Supplier.
        void addDate(int SuppID);  // This functionality will help to mention and add Date, entered by the user.
        void addTime(int SuppID, const char* SuppDate);  // This functionality will help the program to facilitate
the user to add the Time.
        void promptSeviceAndInfo(char* SuppTime);  // This will display and prompt the user for the detailed
Services available for the user.
        void DispApptServices() const; // This will display the appointment Servies opt by the user before.
        void Save(int SuppID);  // This will save the rest of the work done before.
};

#endif
```

6) DomainController Header File

```
/*
 -----GROUP 6 - INFORMATION-----
SCHEDULING LAB (INCLASS) :-

 NAME :
 Soni Dev Alpeshbhai (130759210) - dasoni4@myseneca.ca
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 PROFESSOR - CASSANDRA LAFFAN
 COURSE - SYD366NEE
 */

// HEADER FILE FOR SCHEDULING - DOMAIN CONTROLLER.

#ifdef DOMAIN_CONTROLLER_H
#ifndef DOMAIN_CONTROLLER_H

#include <stdio.h> // Standard Library...


class DomainController{

    private:
        const int apptID, suppID; // to store the appartment ID and supply ID.
        char* apptDate;  // to store the application Date.
        char* suppTime;  // To store the suppy Time
        float hours;    // To store the hours mentioned by the user.
        double price;  // To store the price estimated in the invoice.

// Functionalities for this program...
    public:
        void addAppt();  // This functionality will add or request the Entity Manager for any available
Appointment.
        void getListSuppliers() const;  // This will display the list of Suppliers.
        void getSupp();  // This will fetch the Supplier chose by the user from the Entity Manager.
        void addDate(int SuppID);  // This functionality will help to mention and add Date, entered by the user.
        void addTime(int SuppID, const char* SuppDate);  // This functionality will help the program to facilitate
the user to add the Time.
        void getSeviceAndInfo(char* SuppTime);  // This will fetch the Services and the required information from
the Entity Manager, as requested by the user.
        void promptApptServices() const; // This will display the appointment Servies opt by the user before.
        void Save(int SuppID);  // This will save the rest of the work done before.
};

#endif
```

7) EntityManager Header File

```
/*
 -----GROUP 6 - INFORMATION-----
SCHEDULING LAB (INCLASS) :-

 NAME :
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 Alex (177037215) - achoi28@myseneca.ca

 DATE - 17 NOV 2022
 PROFESSOR - CASSANDRA LAFFAN
 COURSE - SYD366NEE
 */

// HEADER FILE FOR SCHEDULING - ENTITY MANAGER.

#ifdef ENTITY_MANAGER_H
#ifndef ENTITY_MANAGER_H

#include <stdio.h> // Standard Library...


class EntityManager{
    private:
    const int SuppID;  // This will store the Supplier ID entered by the user.

// Functionalities for this program...
    public:
        void create();  // This will create a multiple file database from the Entity Manager.
        void persists(int SuppID);  // This will persist everything at the end of the program.

};

#endif
```