University of Essex | Online

Seminar 3 Preparation: Working with UML

Course: MSc Computer Science

Module: Object-Oriented Information Systems

Assignment: ePortfolio

Date: Thursday 22nd July 2021

Student ID: 126853

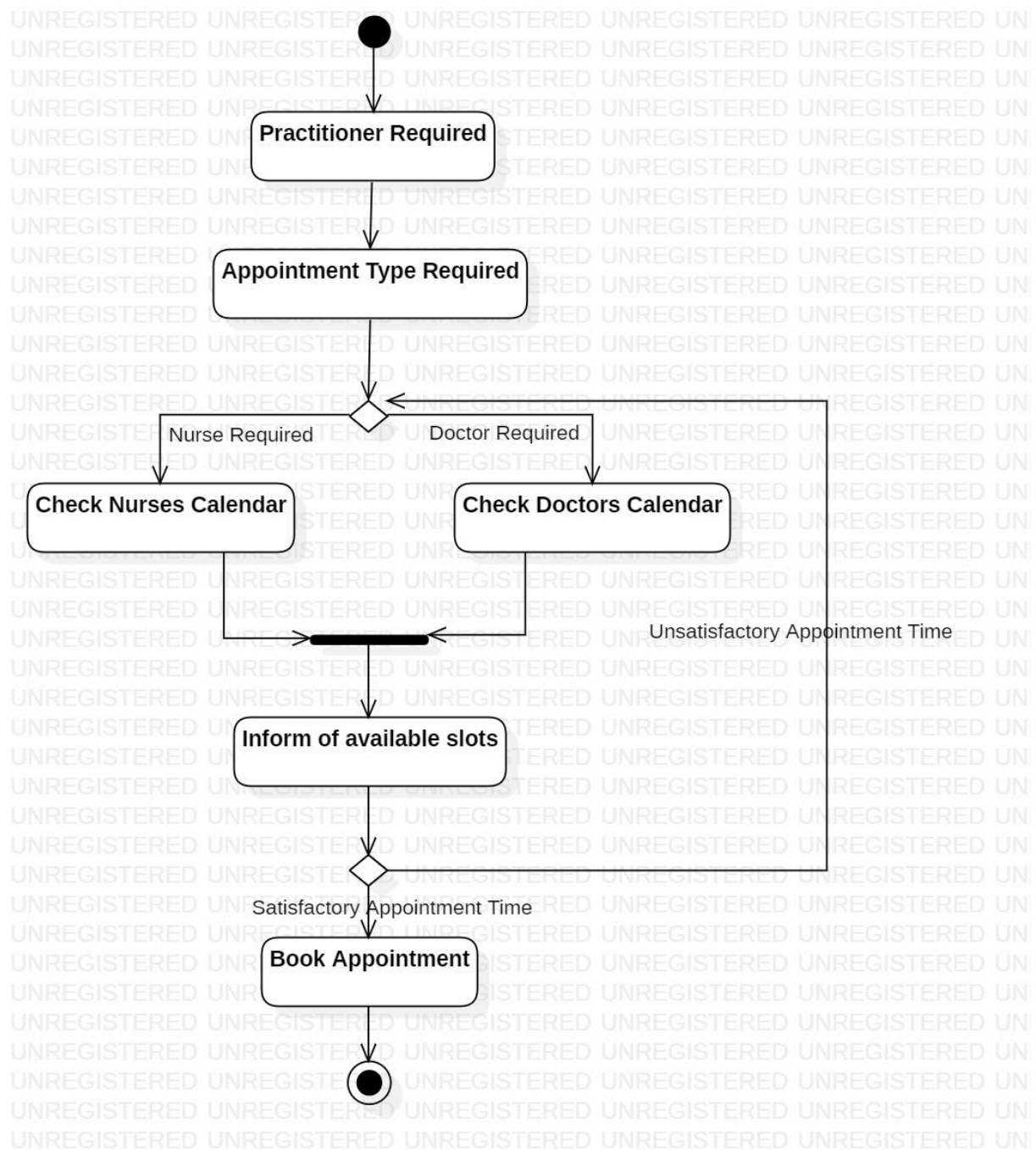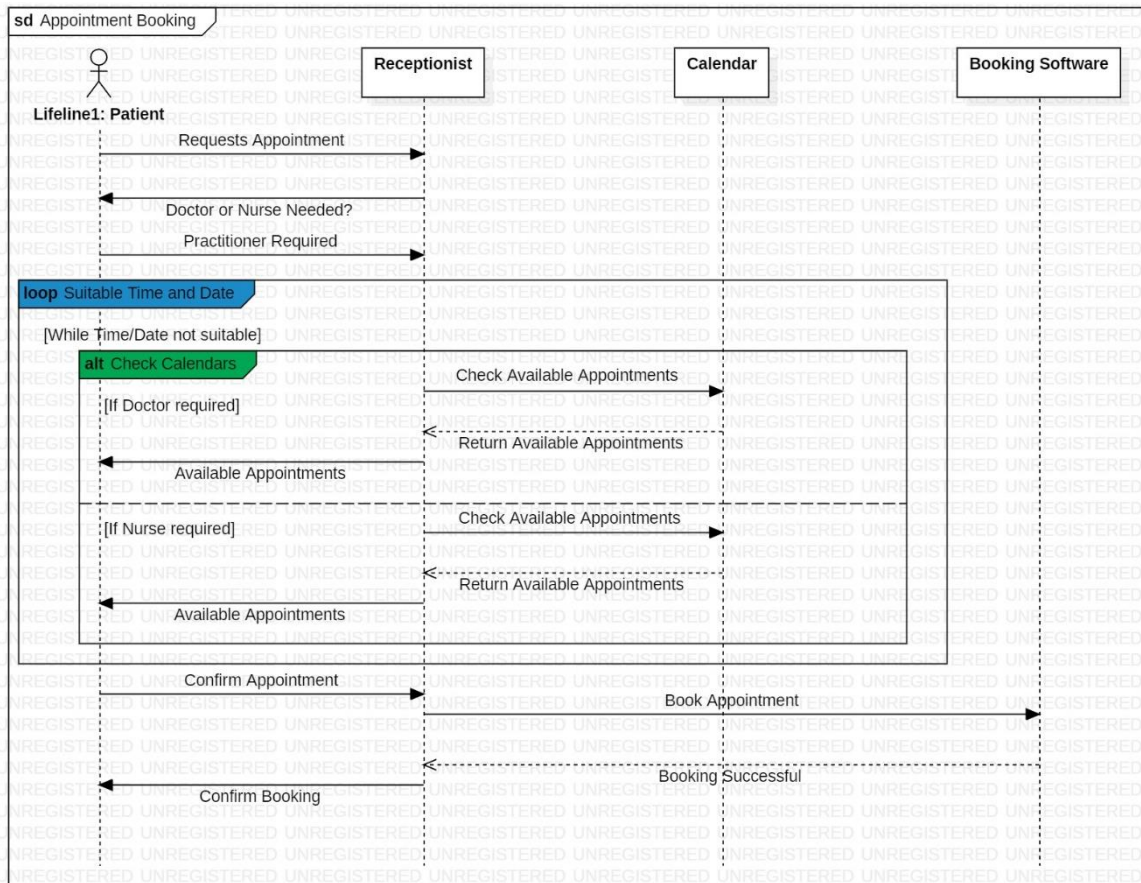## Working With UML:

Post:

Hi All,

I've attached my UML Class Diagram, Sequence Diagram and Activity Diagram.

They're the first attempt, but hopefully, they're almost there!

Please ignore the "Unregistered" text all over the diagrams, I didn't realise until

exporting that the StarUML Evaluation version did that!

Regards,

Kieron

```
                    ●
                    │
                    ▼
        ┌───────────────────────┐
        │  Practitioner Required │
        └───────────────────────┘
                    │
                    ▼
      ┌─────────────────────────────┐
      │  Appointment Type Required   │
      └─────────────────────────────┘
                    │
                    ▼
                    ◇──────────────────────────────┐
         Nurse Required │  Doctor Required          │
              ┌─────────┴─────────┐                 │
              ▼                   ▼                 │
  ┌───────────────────┐  ┌───────────────────┐      │
  │Check Nurses Calendar│ │Check Doctors Calendar│   │
  └───────────────────┘  └───────────────────┘      │
              │                   │                 │
              └─────────┬─────────┘   Unsatisfactory Appointment Time
                   ━━━━━┻━━━━━                      │
                        │                           │
                        ▼                           │
          ┌───────────────────────┐                 │
          │ Inform of available slots │             │
          └───────────────────────┘                 │
                        │                           │
                        ▼                           │
                        ◇───────────────────────────┘
         Satisfactory Appointment Time
                        │
                        ▼
          ┌───────────────────────┐
          │   Book Appointment     │
          └───────────────────────┘
                        │
                        ▼
                       ◉
```

sd Appointment Booking

Lifeline1: Patient — **Receptionist** — **Calendar** — **Booking Software**

- Requests Appointment
- Doctor or Nurse Needed?
- Practitioner Required

loop Suitable Time and Date

[While Time/Date not suitable]

alt Check Calendars

[If Doctor required]
- Check Available Appointments
- Return Available Appointments
- Available Appointments

[If Nurse required]
- Check Available Appointments
- Return Available Appointments
- Available Appointments

- Confirm Appointment
- Book Appointment
- Booking Successful
- Confirm Booking

Doctors Surgery

Person

+Person_ID: int
+First_Name: string
+Surname: string
+Address: string

#AddPerson()
#UpdatePerson()

Staff

+Staff_ID: int
+Staff_Salary: int
+Staff_PhoneNumber: string
+Staff_EmailAddress: string
+Staff_StartDate: date
+Staff_EndDate: date

#AddStaffMember()
#UpdateStaffMember()
#FireStaffMember()

Patient

+Patient_ID: id
+Patient_DOB: date
+Patient_Notes: text

+AddPatient()
+UpdatePatient()
+TransferPatient()

0..500

Receptionist

+Receptionist_ID

-AddReceptionist()
-UpdateReceptionist()

Doctor

+Doctor_ID

-AddDoctor()
-UpdateDoctor()

Nurse

+Nurse_ID

-AddNurse()
-UpdateNurse()

1

1

0..500

1

1

1

1

Appointments

+Appointment_ID: int
+Appointment_Date: date
+Appointment_Time: time

+BookAppointment()
+UpdateAppointment()
+CancelAppointment()

0..*

0..*

0..*

0..*

0..*

Prescriptions

+Prescription_ID: int
+Prescription_Items: list
+Prescription_Amount: int
+Prescription_Notes: text
+Prescription_Date: date
+Prescription_Frequency: string

+IssuePrescription()
+UpdatePrescription()
+SetupRepeatPrescription()

1

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Screenshot:

UML Diagrams - Seminar 3 Prep
42 days ago

2 replies

Last 30 days ago

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I've attached my UML Class Diagram, Sequence Diagram and Activity Diagram. They're the first attempt, but hopefully, they're almost there!
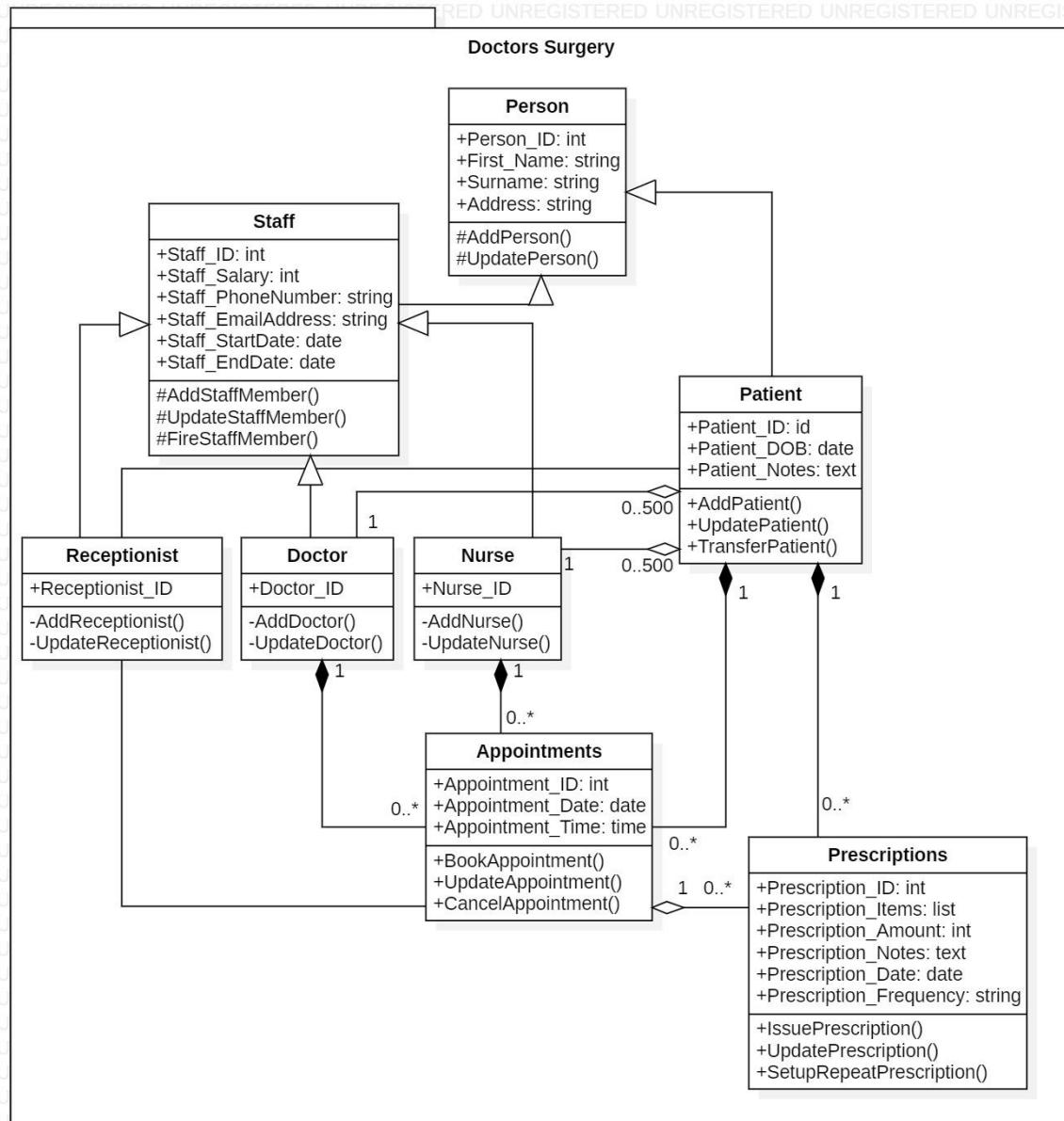
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Regards,

Kieron

Practitioner Required

Appointment Type Required

Nurse Required — Doctor Required

Check Nurses Calendar — Check Doctors Calendar

Unsatisfactory Appointment Time

Inform of available slots

Satisfactory Appointment Time

Book Appointment

sd Appointment Booking

Receptionist — Calendar — Booking Software

Lifeline1: Patient

Requests Appointment

Doctor or Nurse Needed?

Practitioner Required

loop Suitable Time and Date

[While Time/Date not suitable]

alt Check Calendars

Check Available Appointments

[If Doctor required]

Return Available Appointments

Available Appointments

[If Nurse required]

Check Available Appointments

Return Available Appointments

Available Appointments

Confirm Appointment — Book Appointment

My Modules ▾

Kieron

Doctors Surgery

Person
+Person_ID: int
+First_Name: string
+Surname: string
+Address: string
#AddPerson()
#UpdatePerson()

Staff
+Staff_ID: int
+Staff_Salary: int
+Staff_PhoneNumber: string
+Staff_EmailAddress: string
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+Staff_EndDate: date
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#UpdateStaffMember()
#FireStaffMember()

Patient
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+Patient_DOB: date
+Patient_Notes: text
+AddPatient()
+UpdatePatient()
+TransferPatient()

Receptionist
+Receptionist_ID
-AddReceptionist()
-UpdateReceptionist()

Doctor
+Doctor_ID
-AddDoctor()
-UpdateDoctor()

Nurse
+Nurse_ID
-AddNurse()
-UpdateNurse()

Appointments
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+Prescription_Amount: int

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