Birth and Delivery

Abigail Pitcairn, Nathaniel Serrano, Abdifatah Abdirahman,
Ashley Pike and Josh Thyng

Introductions

Team Lead: Abigail Pitcairn

Pair Programming Team 1:

- Nathaniel Serrano
- Abdifatah Abdirahman

Pair Programming Team 2:

- Ashley Pike
- Josh Thyng

Use Cases

Delivery Registration

- Nurse fills Delivery Register form
- Form saved to database
- Data attributed to both mother & newborn

Monthly Midwife Report

- Data from Delivery Register feeds into Monthly Midwife Report.
- Ensures reporting consistency.

Use Cases

New Patient Creation

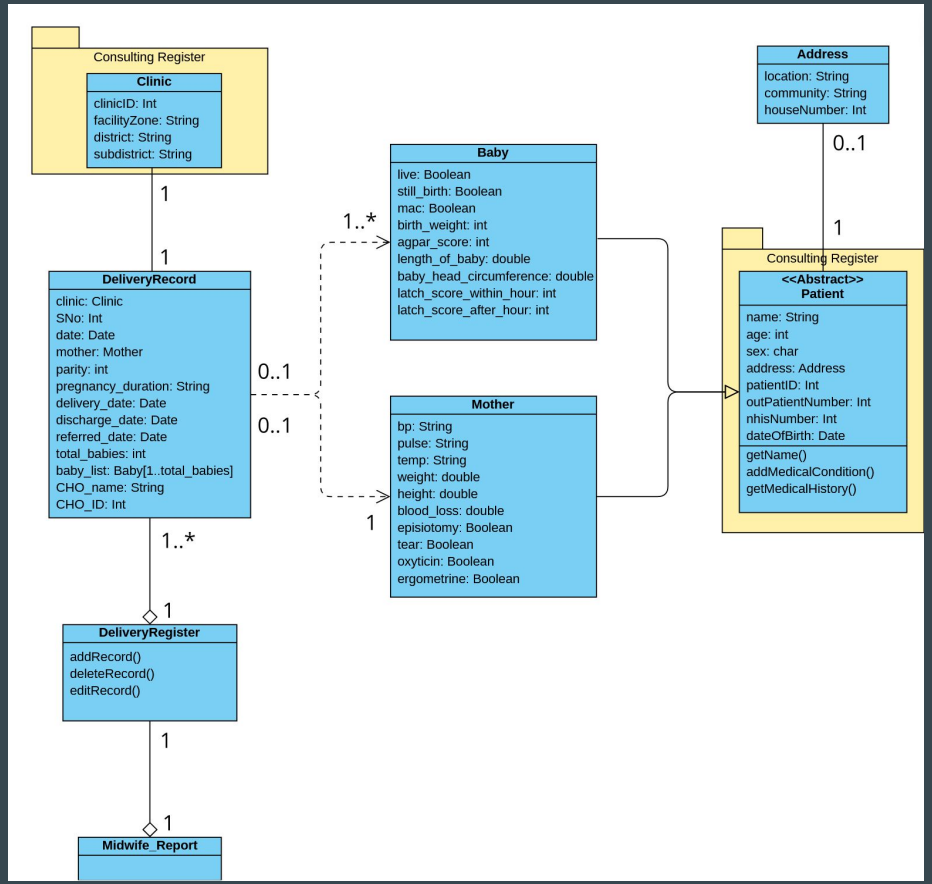
- Nurse tries to enter a Delivery form, but patient isn't found.
- System allows creating a new patient and links it to the delivery.

Patient Search & History

- Nurse searches for a mother.
- System displays past deliveries and outcomes.
- Visit objects linked to Patient.
- Potential hereditary info carried to newborn.

Domain Model

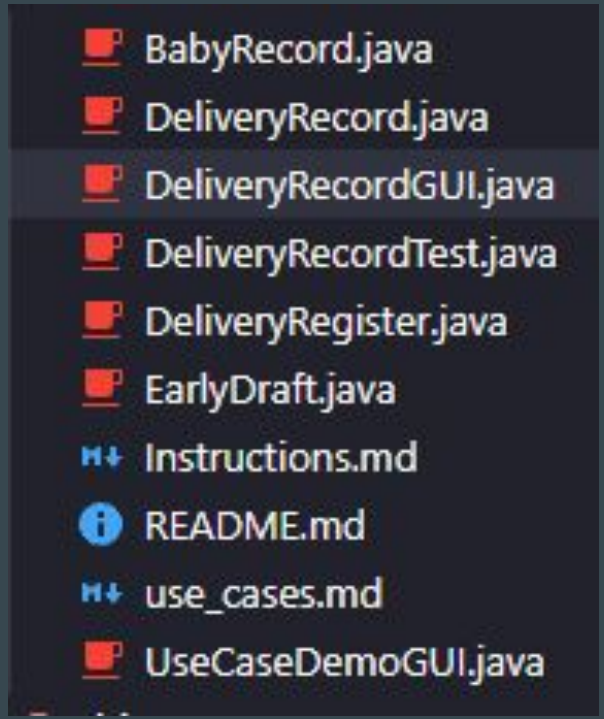
- Represents real world objects and how they are associated with each other
- Mother and Baby contain their own variables in addition to those included in the abstract Patient class
- Several DeliveryRecords make up the DeliveryRegister which is used to generate the Midwife Report



Back-End File Breakdown

File Breakdown:

- BabyRecord.java: Holds information about each baby
- DeliveryRecord.java: Stores full delivery event info (mothers info, birth outcome, medications, etc.)
- DeliveryRegister.java: Basic database that allows for adding, deleting, editing
- EarlyDraft.java: Stores rough first demo of everything that we wanted to achieve with the project
- DeliveryRecordTest.java: Simple java test file to print FAKE delivery record
- UseCaseDemoGUI.java: Main GUI that shows buttons for running use cases like adding patients, deliveries, etc
- DeliveryRecordGUI: A form-style GUI where nurses can fill out a detailed record



The Record Classes

A DeliveryRecord contains one or more BabyRecords, depending on how many babies were delivered, i.e. twins means there's two BabyRecords on one DeliveryRecord.

420BirthAndDelivery / Archive / Iteration3 / **DeliveryRecord.java**

Code | Blame | 111 lines (97 loc) · 4.55 KB

```java
public DeliveryRecord(String facilityName, String subDistrict, int sNo, String date, int nhisRegNumber, int choID,
                      String whoDeliveredBaby, int motherPatientID, String pregnancyDuration, String deliveryDate,
                      String dischargeDate, String referredDate, ArrayList<BabyRecord> babyRecords,
                      String bp, String pulse, String temp, double weight, double height, double bloodLoss,
                      boolean motherAlive, boolean episiotomy, boolean tear, boolean oxytocin,
                      boolean ergometrine, boolean placentaExamined, String comments) {

    this.facilityName = facilityName;
    this.subDistrict = subDistrict;
    this.sNo = sNo;
    this.date = date;
    this.nhisRegNumber = nhisRegNumber;
    this.choID = choID;
    this.whoDeliveredBaby = whoDeliveredBaby;
    this.motherPatientID = motherPatientID;
    this.pregnancyDuration = pregnancyDuration;
    this.deliveryDate = deliveryDate;
    this.dischargeDate = dischargeDate;
    this.referredDate = referredDate;
    this.babyRecords = babyRecords != null ? babyRecords : new ArrayList<>();
    this.bp = bp;
    this.pulse = pulse;
    this.temp = temp;
    this.weight = weight;
    this.height = height;
    this.bloodLoss = bloodLoss;
    this.motherAlive = motherAlive;
    this.episiotomy = episiotomy;
    this.tear = tear;
    this.oxytocin = oxytocin;
    this.ergometrine = ergometrine;
    this.placentaExamined = placentaExamined;
    this.comments = comments;
}
```

420BirthAndDelivery / Archive / Iteration3 / **BabyRecord.java**

abbyPitcairn Update to iteration 3

Code | Blame | 30 lines (27 loc) · 1.14 KB

```java
package Archive.Iteration3;

public class BabyRecord {
    private int babyID;
    private int apgarScore;
    private double lengthOfBaby;
    private double babyHeadCircumference;
    private double weight;
    private int latchScoreWithinHour;
    private int latchScoreAfterHour;

    public BabyRecord(int babyID, int apgarScore, double lengthOfBaby, double babyHeadCircumference,
                      double weight, int latchScoreWithinHour, int latchScoreAfterHour) {
        this.babyID = babyID;
        this.apgarScore = apgarScore;
        this.lengthOfBaby = lengthOfBaby;
        this.babyHeadCircumference = babyHeadCircumference;
        this.weight = weight;
        this.latchScoreWithinHour = latchScoreWithinHour;
        this.latchScoreAfterHour = latchScoreAfterHour;
    }

    @Override
    public String toString() {
        return String.format(
            "Baby ID: %d\n  APGAR: %d\n  Length: %.1f cm\n  Head Circumference: %.1f cm\n  Weight: %.2f kg\n  Latch Score
            babyID, apgarScore, lengthOfBaby, babyHeadCircumference, weight, latchScoreWithinHour, latchScoreAfterHour
        );
    }
}
```

The Record Classes

The DeliveryRegister is essentially our database, where DeliveryRecords can be added, deleted, edited, and printed.

Information from DeliveryRegister can be accessed to create the Monthly Midwife Report.

420BirthAndDelivery / Archive / Iteration3 / DeliveryRegister.java

abbyPitcairn Update to iteration 3

Code Blame 25 lines (17 loc) · 625 Bytes

```java
package Archive.Iteration3;

import java.util.ArrayList;

public class DeliveryRegister {

    ArrayList<DeliveryRecord> DeliveryRegister = new ArrayList<>();

    public void addRecord(DeliveryRecord record){
        DeliveryRegister.add(record);
    }

    public boolean deleteRecord(DeliveryRecord record){
        return DeliveryRegister.remove(record);
    }

    public void editRecord(DeliveryRecord record){
        // find record; open record; allow changes to record; add record back to register
    }

    public void printRecord(DeliveryRecord record){
        System.out.println(record.toString());
    }

}
```

The GUI

- Created using Java Swing

- Helps test different use cases by allowing the user to create their own Patient Objects and view/add medical history to them.