Academy of Technology

Name - Soumyajit Ghosh
Dept - CSE1 . Roll - 48
Univ. Roll - 16900118048
Subject - Software Engineering Lab
Subject code - ESC 501

Q.1 A Consider the following activities with optimistic, nominal and pessimistic duration

1. T_1 (6, 10, 12)
2. T_2 (12, 16, 20)
3. T_3 (7, 10, 20)
4. T_4 (10, 14, 20)
5. T_5 (11, 13, 15)

Precedence relation :

$1,2 < 3 ; 3 < 4 ; 4 < 5$

Determine the duration of the summary tasks . Draw optimistic, expected and pessimistic Gantt chart for the project. PERT weights are 1, 4, 1 for optimistic, nominal, pessimistic respectively.

Ans)

Problem Definition

Gnatt Chart :- A Gnatt chart is a type of bar chart that illustrate a project schedule, modern gnatt chart also show the dependency relationships between activities and the current schedule status. We have to show optimistic, Pessimistic and nominal gnatt chart.

~~optimistic gnatt chart~~

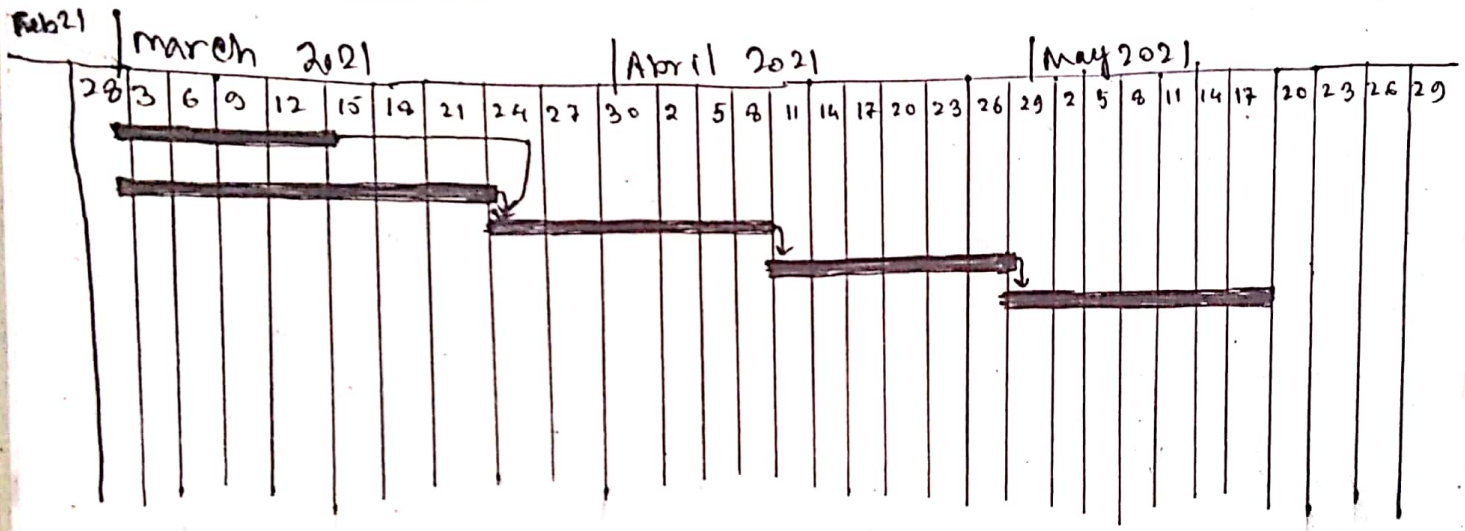
The optimistic duration field contains the best case possibilities for the total span of active working time expected for a task.

The pessimistic duration field contains the worst case possibility for the total span of active working time expected for a task.

Scanned with CamScanner

A network diagram is a graphical representation of the project and is composed of a series of connected arrows and boxes to ~~des~~ show inter relationship between activities involves in the project.

Gantt Chart :



~~Duration of the Summary task is a~~

Entry Table

Task Name	Duration	Start	Finish	Predecessor
T_1	9.67 days	Tue 2-3-21	Mon 15-3-21	
T_2	16 days	Tue 2-3-21	Tue 23-3-21	
T_3	11.17 days	Wed 24-3-21	Thu 8-4-21	1,2
T_4	14.33 days	Thu 8-4-21	Wed 28-4-21	3
T_5	13 days	Wed 28-4-21	Mon 17-4-21	4

Duration of slack time is for T_1 = 9.67 days, T_2 = 16 days, T_3 = 11.17 days, T_4 = 14.33 days, T_5 = 13 days.

Scanned with CamScanner

3.1. B Draw the activity diagram of Hospital Management System.

Problem Definition

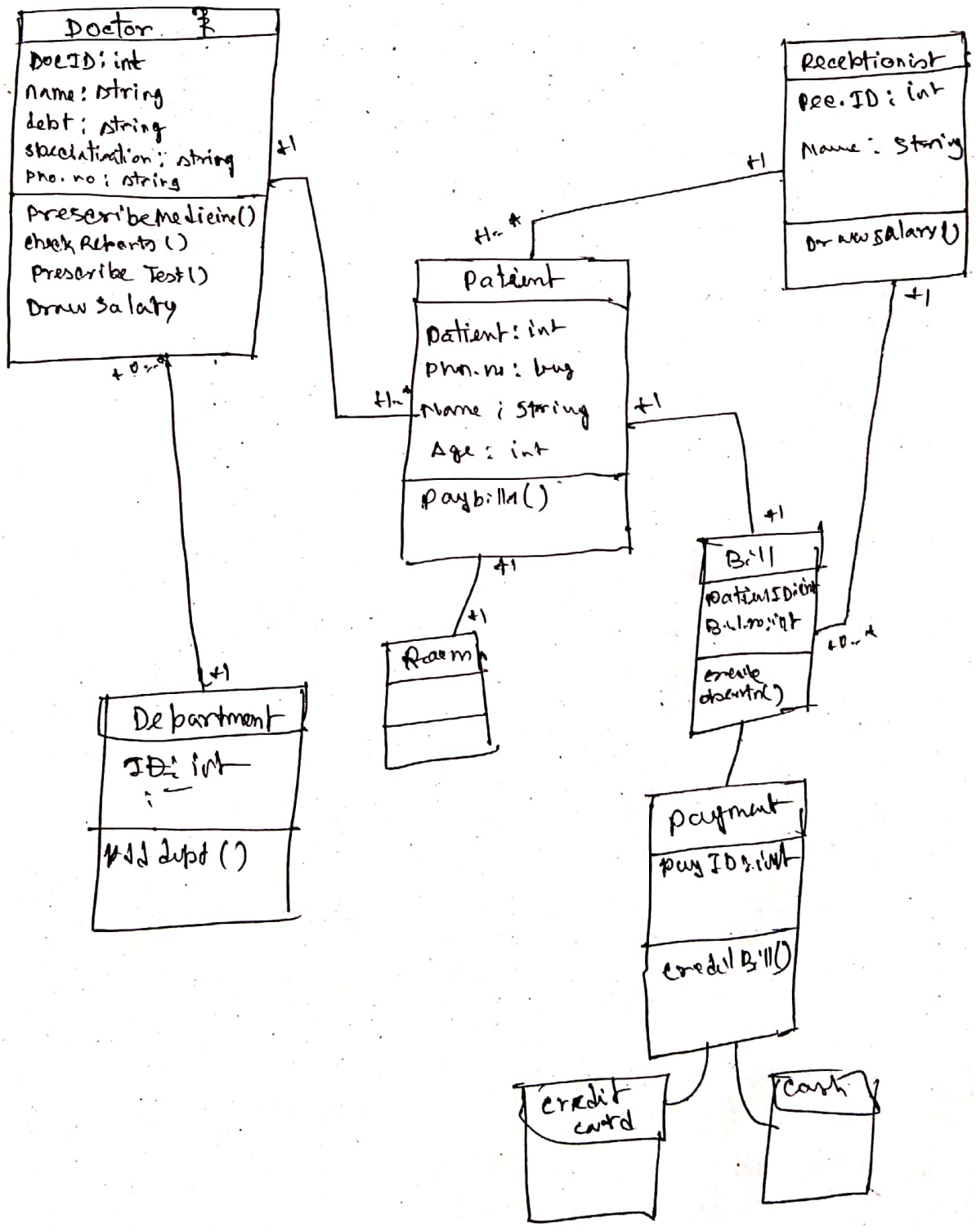
A class diagram in the Unified modelling Language (UML) is a type of static structure diagram that describe the structure of a system by showing the system classes, their attributes, operations or method and relationships among objects. A UML class diagram is made of a set of classes and relationship between them. Every class contains class name, attributes and, operations or methods.

An Attributes is named property of a class which describes the object being modeled. And Methods are small section of code that work with the attributes.

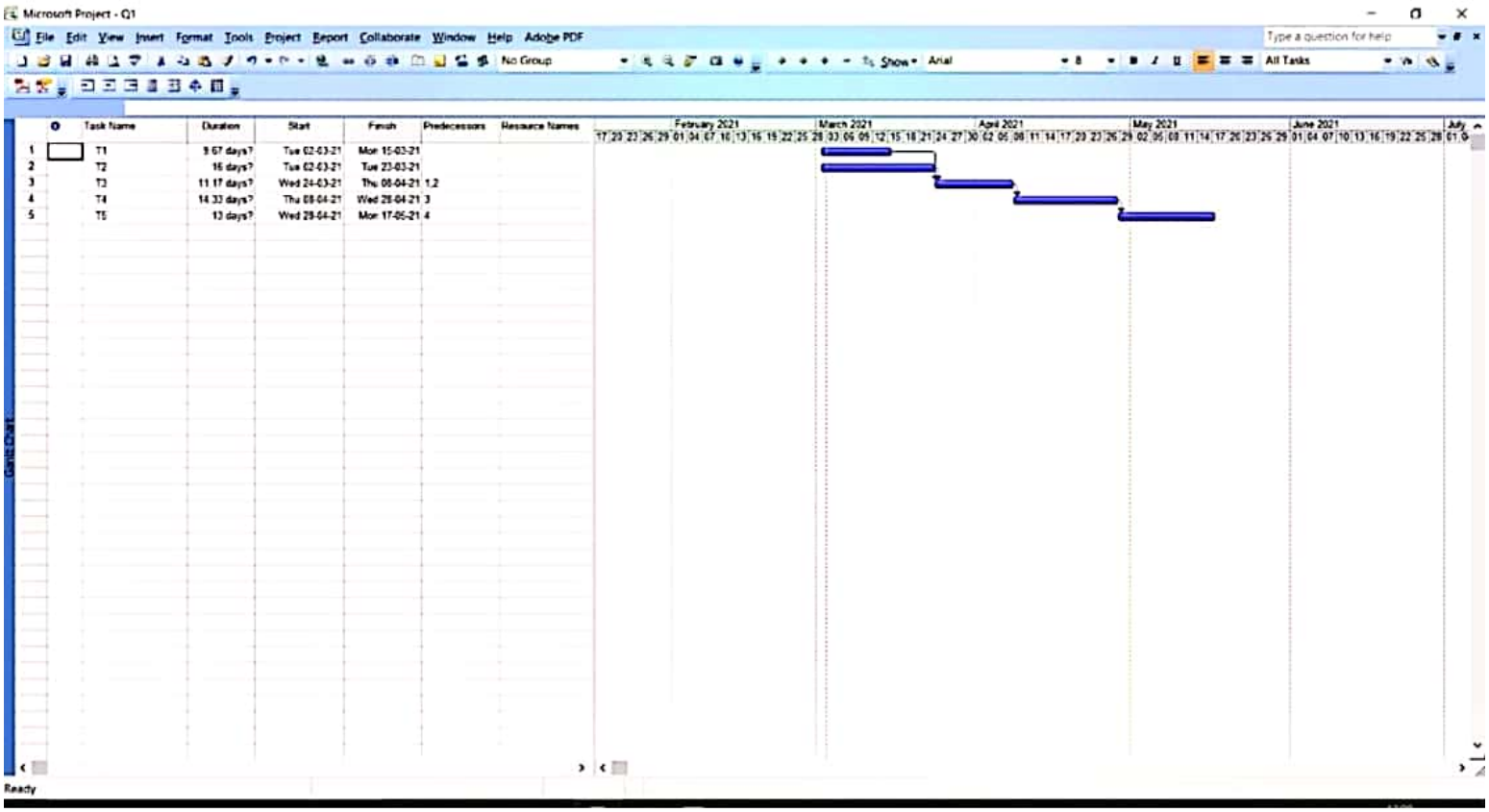
Scanned with CamScanner

Here we are creating a class diagram of Hospital management system. There are nine classes named Doctor, Patient, Receptionist, Bill, Rooms, Department, payments, credit card, cash. Every class contains some attributes and method. e.g. Class Doctor contains DocID: int, name: string etc. attributes and, Prescribe medicine(), check Reports() are methods.

Diagram :-

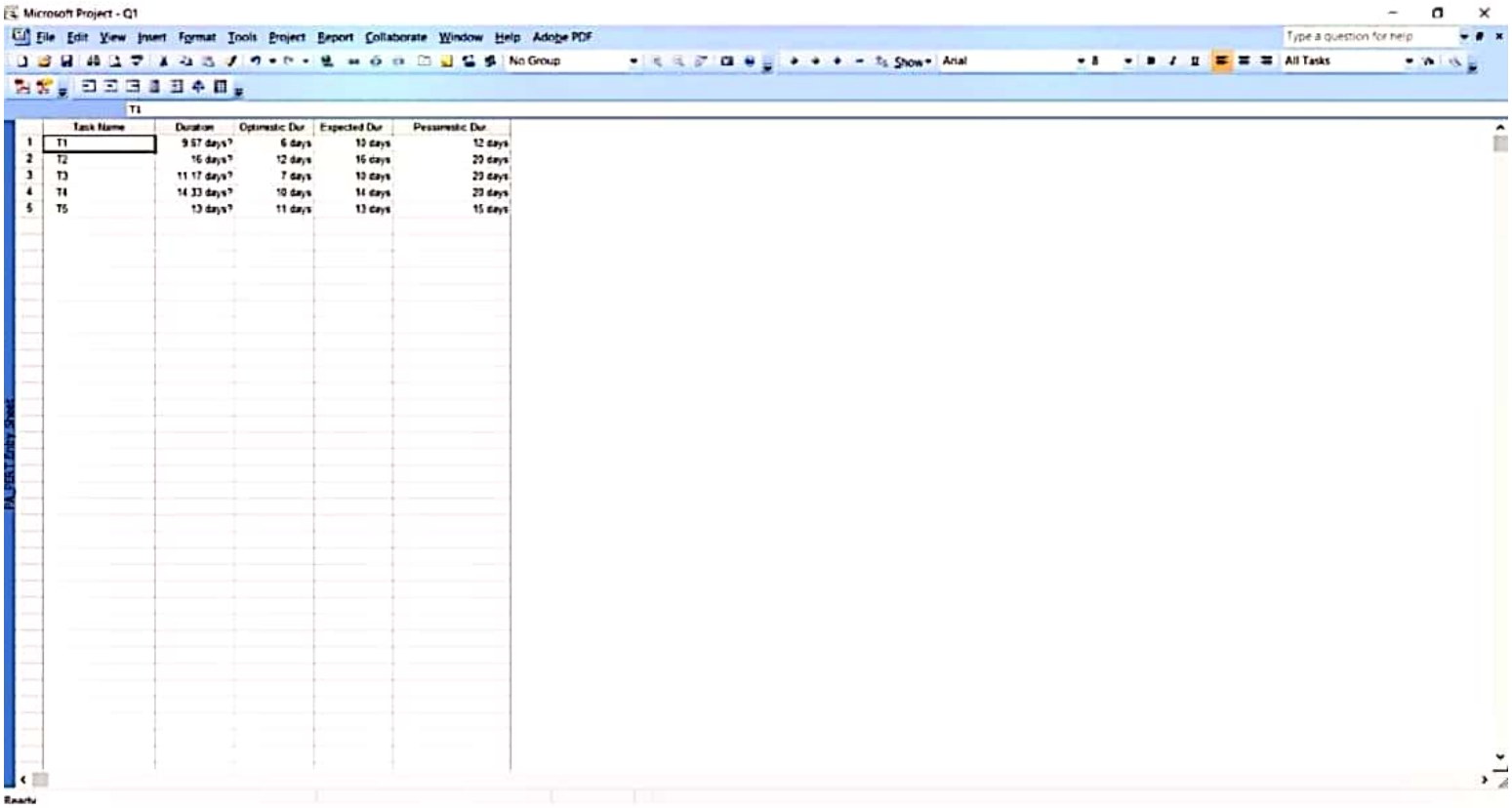


Scanned with CamScanner



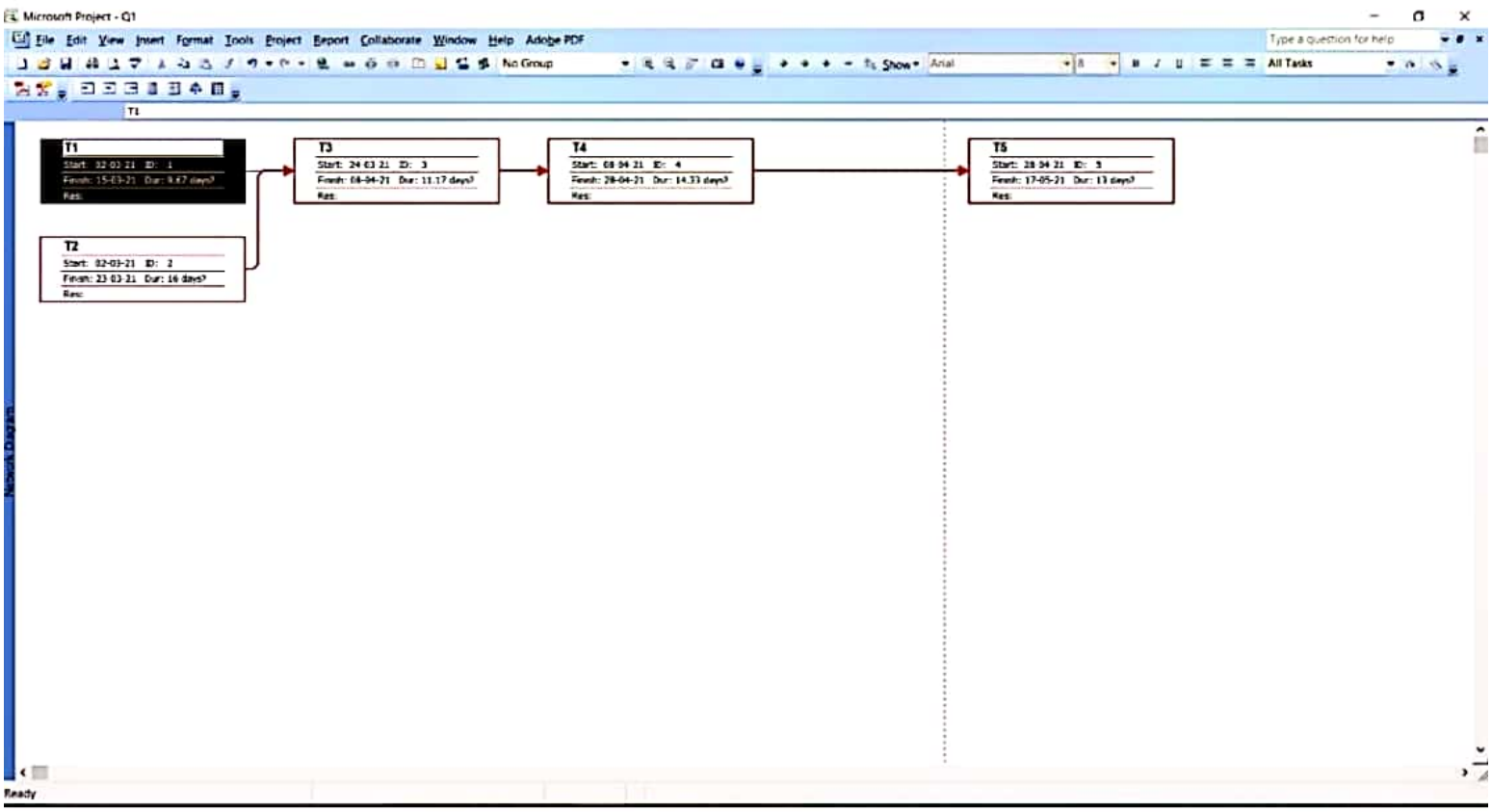
Scanned by TapScanner

Scanned with CamScanner



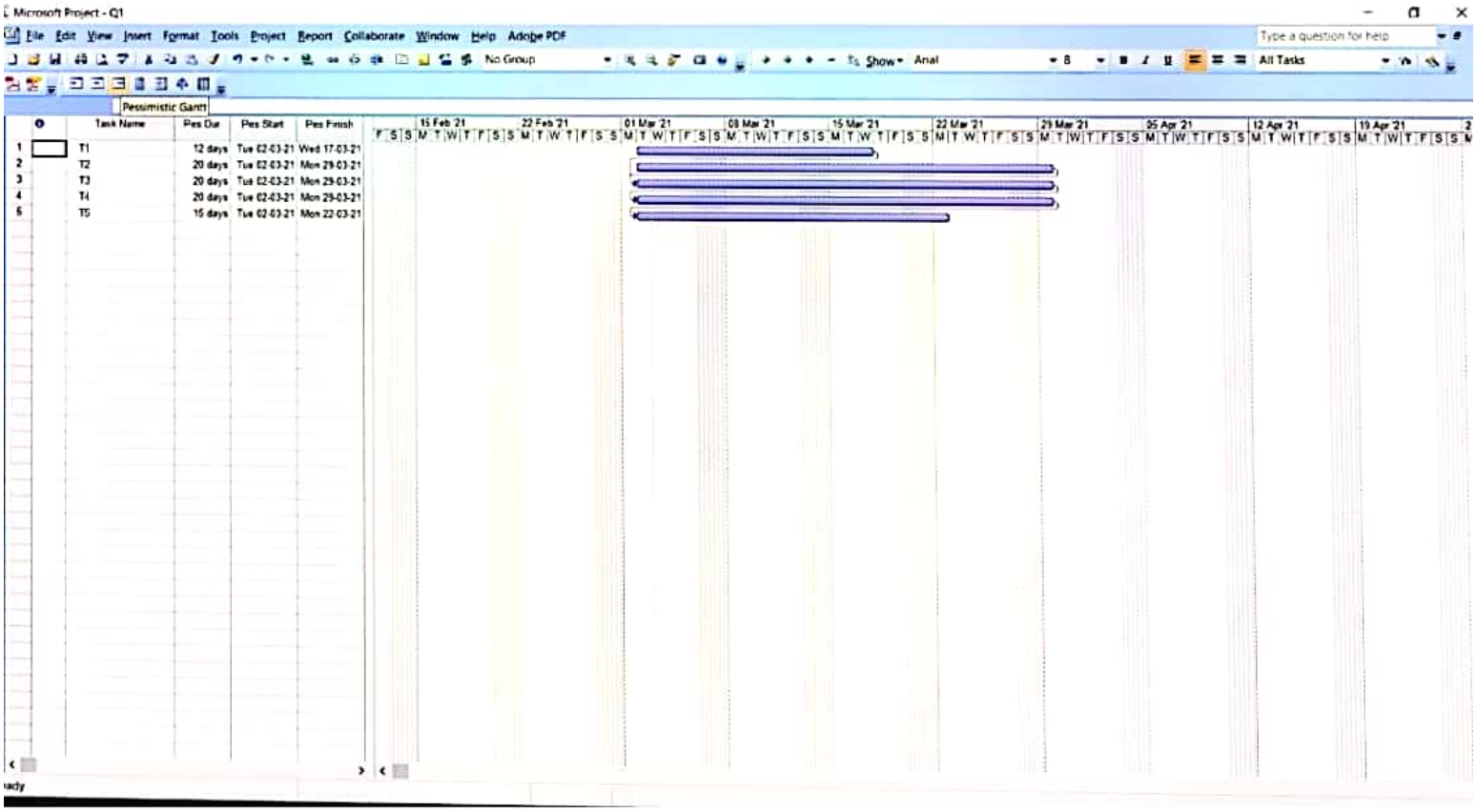
Scanned by TapScanner

Scanned with CamScanner



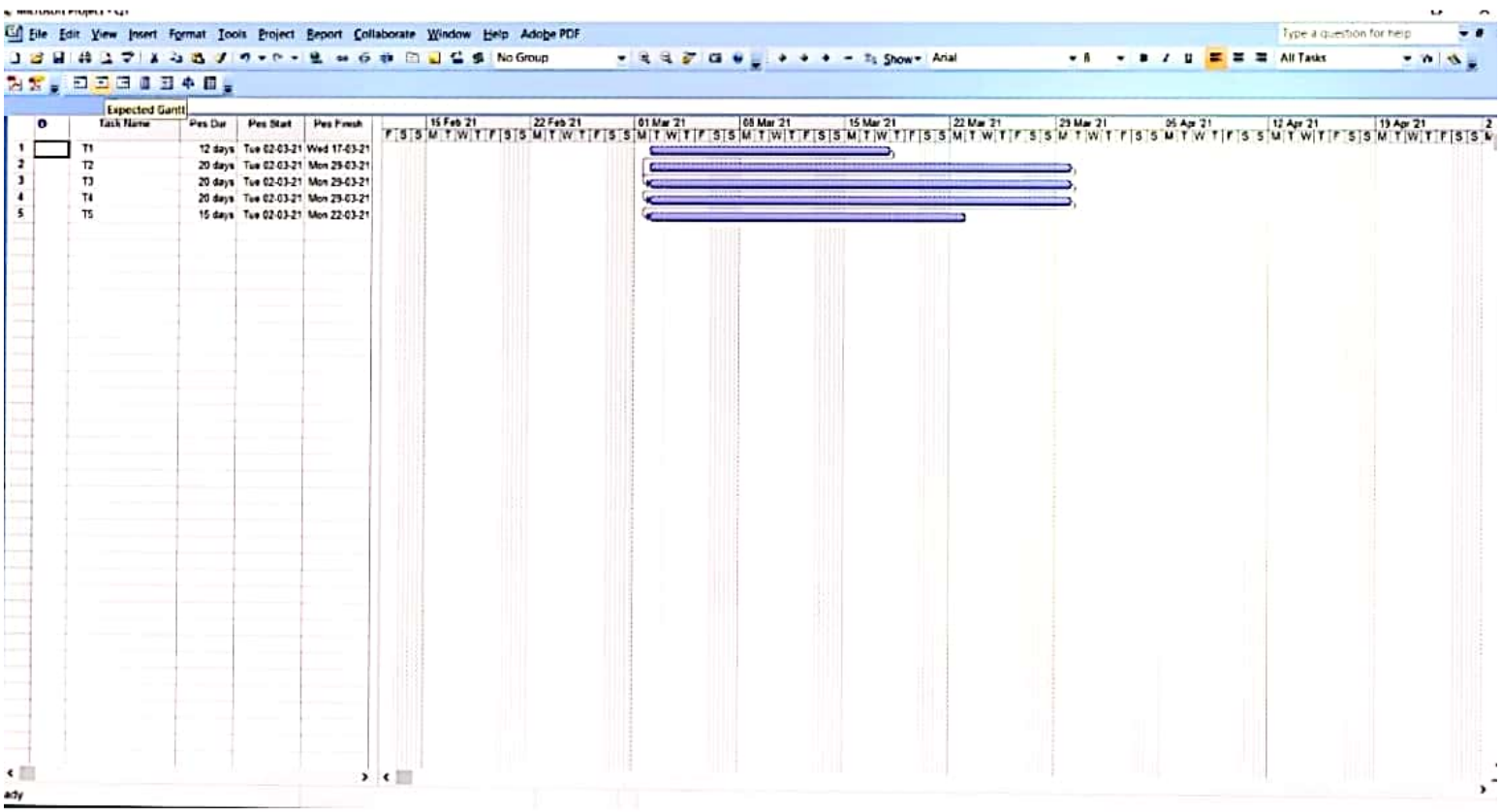
Scanned by TapScanner

Scanned with CamScanner



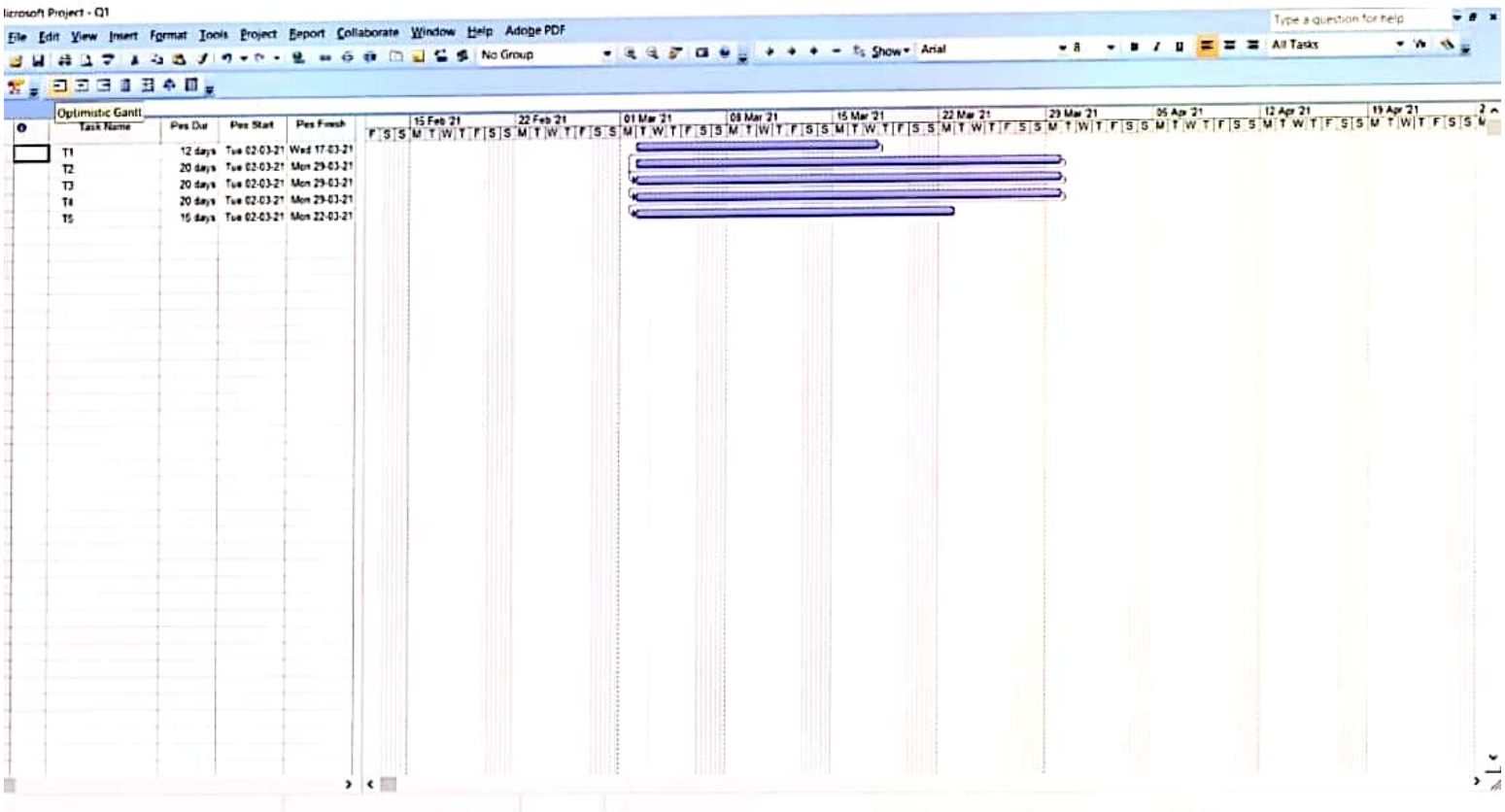
Scanned by TapScanner

Scanned with CamScanner



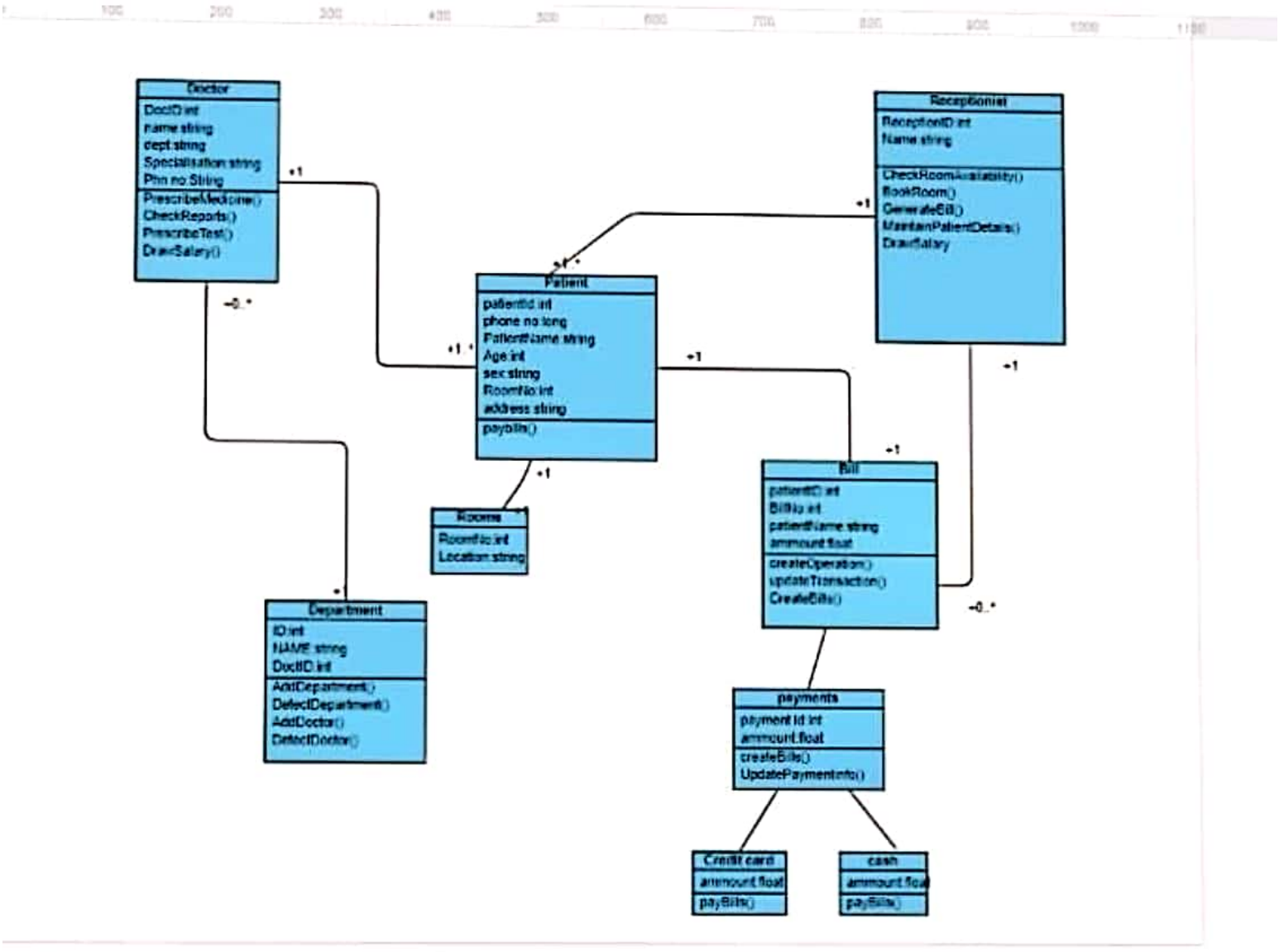
Scanned by TapScanner

Scanned with CamScanner



Scanned by TapScanner

Scanned with CamScanner



Scanned by TapScanner

Scanned with CamScanner