

1. Google Classroom is a teacher/student platform, which Google designed for the way teachers and students think and work. It converts traditional paper-based teaching mechanisms to an online paperless one. It all starts with the creation of a classroom by a teacher. Students can easily connect to a classroom using a unique code created for each classroom. It also allows the teachers to create and add materials to assignments, such as YouTube videos, a Google Forms survey, and other items from Google Drive. In this pandemic situation, it has done more for the teacher-student community. Teachers can set graded assignments. Due date setting facility is also offered for the assignments. Once the assignment is posted, students can solve those and submit them online. On completion of submission, teachers can grade and return the result to the students. The updates of the events are also emailed to corresponding email addresses which are used while connecting to the classroom.

Design a use case diagram based on the above information.

2. Analyzing the system for BDEX (a Bangladeshi courier service), following requirements were identified:

1. There will be three types of users: Customer, First Officer and Manager
2. Customer can initiate emergency delivery by providing item details
3. Customer can choose between regular and express delivery
4. Reward points are added into Customer account for express delivery
5. First Officer can fill out courier form with necessary information
6. For confidential and/or fragile item(s), First Officer must fill out insurance and policy documents during packaging but it is not needed for general items.
7. Manager can approve and sign off parcel item(s) for delivery
8. Manager can contact Customer for delay in parcel arrival
9. Manager can mark packages delivered after getting Customer confirmation

Design a use case diagram based on the above information.

3. Analyzing the system for online ticket booking, the following requirements were identified-

1. There can be three types passenger: General, Premium and New
2. Passenger can register into the system with his - NID, Name, Email, Mobile Number, and Password
3. Passenger can login into the system with his email and password
4. Passenger can buy ticket

5. Ticket should be confirmed by the System Admin
6. Passenger can pay the ticket price online after being confirmed
7. Online payment should be using the "PAYBD" payment gateway
8. Passenger can cancel a booking
9. Passenger can request for return money for the canceled booking

Design a Use Case diagram based on the above information.

4. Analyzing the system for student assignment management, the following requirements were identified-
 1. There can be three types of users: Teacher, Teaching Assistant (TA) and Student
 2. Teacher can add new assignments
 3. Teacher can edit/remove an existing assignment
 4. TA can edit/remove an existing assignment
 5. Student can submit an assignment
 6. Student can edit his submission (before due date)
 7. TA can assign grade to submission (after due date)
 8. Teacher can modify grade after graded by the TA
 9. Student can view grade
 10. Student can generate reports of his submissions after graded by the TA

Design a Use Case diagram based on the above information.