1. An online learning platform aims to track student progress and course completion. Create a database schema for the platform by considering the following tables and prepare the required queries as given below.

### **Students**

| **StudentID** | **FirstName** | **LastName** | **Email** | **EnrollmentDate** | **Country** |
| --- | --- | --- | --- | --- | --- |
| 1 | Raj | Sharma | [raj.sharma@example.com](mailto:raj.sharma@example.com) | 2023-01-10 | India |
| 2 | Priya | Singh | [priya.singh@example.com](mailto:priya.singh@example.com) | 2023-02-15 | India |
| 3 | Amit | Kumar | [amit.kumar@example.com](mailto:amit.kumar@example.com) | 2023-03-20 | India |
| 4 | Anjali | Verma | [anjali.verma@example.com](mailto:anjali.verma@example.com) | 2023-04-05 | India |
| 5 | Rohit | Gupta | [rohit.gupta@example.com](mailto:rohit.gupta@example.com) | 2023-05-10 | India |
| 6 | Sneha | Reddy | [sneha.reddy@example.com](mailto:sneha.reddy@example.com) | 2023-06-15 | India |

**Courses**

| **CourseID** | **CourseName** | **Description** | **StartDate** | **EndDate** | **InstructorID** |
| --- | --- | --- | --- | --- | --- |
| 101 | Introduction to SQL | Learn the basics of SQL and database management. | 2023-02-01 | 2023-05-01 | 201 |
| 102 | Advanced SQL | Deep dive into advanced SQL queries and optimization techniques. | 2023-03-01 | 2023-06-01 | 202 |
| 103 | Data Modeling | Principles and practices of data modeling. | 2023-04-01 | 2023-07-01 | 203 |
| 104 | Database Security | Learn about securing databases and protecting data. | 2023-05-01 | 2023-08-01 | 204 |
| 105 | SQL for Data Analysis | Using SQL for data analysis and reporting. | 2023-06-01 | 2023-09-01 | 205 |
| 106 | NoSQL Databases | Introduction to NoSQL databases and their use cases. | 2023-07-01 | 2023-10-01 | 206 |

**Instructors**

| **InstructorID** | **FirstName** | **LastName** | **Email** | **HireDate** | **Department** |
| --- | --- | --- | --- | --- | --- |
| 201 | Anil | Kapoor | [anil.kapoor@example.com](mailto:anil.kapoor@example.com) | 2020-08-15 | Computer Science |
| 202 | Meera | Nair | [meera.nair@example.com](mailto:meera.nair@example.com) | 2019-07-10 | Computer Science |
| 203 | Rakesh | Singh | [rakesh.singh@example.com](mailto:rakesh.singh@example.com) | 2018-06-05 | Information Systems |
| 204 | Sunita | Rao | [sunita.rao@example.com](mailto:sunita.rao@example.com) | 2017-05-01 | Cybersecurity |
| 205 | Arvind | Patel | [arvind.patel@example.com](mailto:arvind.patel@example.com) | 2016-04-15 | Data Science |
| 206 | Kavita | Iyer | [kavita.iyer@example.com](mailto:kavita.iyer@example.com) | 2015-03-20 | Computer Science |

**Enrollments**

| **EnrollmentID** | **StudentID** | **CourseID** | **EnrollmentDate** | **Progress** | **Status** |
| --- | --- | --- | --- | --- | --- |
| 301 | 1 | 101 | 2023-01-15 | 75% | Enrolled |
| 302 | 2 | 102 | 2023-02-20 | 60% | Enrolled |
| 303 | 3 | 103 | 2023-03-25 | 80% | Enrolled |
| 304 | 4 | 104 | 2023-04-10 | 50% | Enrolled |
| 305 | 5 | 105 | 2023-05-15 | 90% | Enrolled |
| 306 | 6 | 106 | 2023-06-20 | 70% | Enrolled |

**Assignments**

| **AssignmentID** | **CourseID** | **Title** | **DueDate** | **MaxScore** | **SubmissionDate** |
| --- | --- | --- | --- | --- | --- |
| 401 | 101 | SQL Basics Assignment | 2023-03-01 | 100 | 2023-02-28 |
| 402 | 102 | Advanced SQL Queries | 2023-04-01 | 100 | 2023-03-30 |
| 403 | 103 | Data Modeling Project | 2023-05-01 | 100 | 2023-04-28 |
| 404 | 104 | Security Measures | 2023-06-01 | 100 | 2023-05-30 |
| 405 | 105 | Data Analysis Report | 2023-07-01 | 100 | 2023-06-28 |
| 406 | 106 | NoSQL vs SQL | 2023-08-01 | 100 | 2023-07-30 |

**Quizzes**

| **QuizID** | **CourseID** | **Title** | **TotalQuestions** | **MaxScore** | **Duration** |
| --- | --- | --- | --- | --- | --- |
| 501 | 101 | Midterm Quiz | 20 | 100 | 60 minutes |
| 502 | 102 | Final Quiz | 25 | 100 | 90 minutes |
| 503 | 103 | Data Modeling Quiz | 15 | 100 | 45 minutes |
| 504 | 104 | Security Quiz | 20 | 100 | 60 minutes |
| 505 | 105 | Data Analysis Quiz | 20 | 100 | 60 minutes |
| 506 | 106 | NoSQL Quiz | 20 | 100 | 60 minutes |

1. Write a query to find the names of students, the courses they have enrolled in, and their grades for each course ?
2. Write a query to list the names of students, the assignments they have submitted, and their due dates.
3. Write a query to list the names of students, the assignments they have submitted, and their submission dates.
4. Write a query to retrieve the names of students and their average assignment scores, only for students with an average assignment score greater than 85.
5. Write a query to List the names of students and their total progress in all courses, only for students with a total progress greater than 200%.
6. List the names of students who have submitted assignments for the course "Advanced SQL".
7. Find the email addresses of students who have a progress greater than 70% in any course.
8. Write a query to list the names of students who are enrolled in courses taught by either "Anil Kapoor" or "Kavita Iyer".
9. Write a query to find the names of students who enrolled between January 1, 2023, and March 30, 2023.
10. Write a query to retrieve the names of students who are enrolled in the course "Introduction to SQL" or "SQL for Data Analysis" with progress greater than 70%.