Excel assignment idea and dataset based on a **School Management Application** domain. This focuses on student performance, class management, and analytics.

Sample School Management Dataset

Student ID	Name	Class	Gender	Mathematics	Science	English	Social Studies	Enrollment Date
S001	Alice Johnson	10	Female	85	90	78	88	2022-06-10
S002	Bob Smith	9	Male	72	65	80	75	2023-01-15
S003	Carol Davis	8	Female	60	70	68	65	2021-09-05
S004	David Wilson	10	Male	95	88	92	90	2020-03-20
S005	Emma Brown	9	Female	50	58	65	62	2022-08-25
S006	Frank Taylor	8	Male	78	80	85	82	2021-11-12
S007	Grace Lee	10	Female	45	50	55	48	2023-02-01
S008	Henry Martin	9	Male	88	92	85	90	2022-07-18
S009	Irene Clark	8	Female	75	68	70	72	2023-03-10
S010	Jack Young	10	Male	60	65	55	58	2022-05-06

Additional Data for Lookups (Class Teachers)

Class	Teacher
8	Mrs. Parker
9	Mr. Johnson
10	Miss Thompson

Assignment: Student Performance and School Management

Tasks

1. **Basic Analysis**:

   o   Calculate the total number of students.

   o   Find the average marks in each subject.

   o   Determine the highest and lowest marks in Mathematics.

   o   Count how many students scored above 75% in Science using **COUNTIF**.

   o   Use conditional formatting to highlight students with marks below 40% in any subject.

2. **Logical Functions**:

   o   Add a column to classify students as "Pass" or "Fail" (Pass if all marks are ≥ 40, otherwise Fail) using **IF**.

   o   Identify "Top Performers" (Total Percentage ≥ 85%) using **IF**.

   o   Add a column to award a grade based on Total Percentage:

      ▪   ≥ 90%: A+

      ▪   80–89%: A

      ▪   70–79%: B

      ▪   60–69%: C

      ▪   < 60%: D

3. **Data Visualization**:

   o   Create a bar chart for average marks in each subject.

   o   Create a pie chart showing the distribution of grades (A+, A, B, etc.).

   o   Build a line chart to compare the performance of three selected students across subjects.

4. **Advanced Functions**:

   o   Use **VLOOKUP** to fetch the class teacher's name for each class from another sheet.

   o   Calculate the total marks and percentage for each student.

   o   Use **TEXT** to display enrollment dates in the format "DD-MMM-YYYY".

5. **Pivot Table**:

   o   Create a Pivot Table to summarize the average marks per class.

   o   Add a filter for Gender and Grade.

   o   Display the count of students in each grade.