**Project Implementation & Code Understanding**

1. How did you design the structure for managing student records in a text file, and why did you choose this format over a database?
2. Explain the process your code follows when loading data into the datagridview. How does it handle errors if the file format is incorrect?
3. How did you ensure the correct format and structure when saving records to the text file?
4. Can you describe the most challenging part of implementing the “Update Student Information” feature? How did you ensure data integrity during updates?
5. What would you modify in your code to make it adaptable if you were to switch to using a database instead of a text file?

**Version Control and GitHub**

1. Describe your Git workflow in this project. How did you manage commits for each functionality (adding, updating, deleting, and generating reports)?
2. How did you handle version control when multiple team members were working on different parts of the project?
3. If a conflict arose in your Git history, explain how you resolved it and avoided losing work.
4. How did you ensure meaningful commit messages, and how do these help in tracking project progress and troubleshooting?

**Error Handling & Validation**

1. What error handling mechanisms did you implement for file operations (like reading from or writing to the textfile)? How does your program handle cases where the textfile is missing or corrupted?
2. Describe the input validation process you implemented for each field. Why is validation critical for this project?
3. How does your system inform the user of errors or invalid inputs? Why did you choose this method over others (such as exception handling)?

**Application Logic & Data Management**

1. Explain how the “Delete a Student” feature works. How do you ensure that the deletion process does not leave the data file in an inconsistent state?
2. Can you demonstrate how the summary report is generated? What approach did you use to calculate and display the total number of students and average age?
3. Describe any potential performance limitations in the way student data is managed in your application. How would you address these if the student data grew significantly?

**Design Decisions**

1. Why did you choose to implement this project as a Windows Forms application? What benefits and limitations come with this choice?
2. Explain any design choices you made for the user interface. How did you ensure it was user-friendly and intuitive?
3. If you were to extend this project, how would you incorporate new features while maintaining the current codebase?

**Real-World Application & Scalability**

1. How would you adapt this project to support multiple users interacting with the system at the same time?
2. Can you discuss any security measures you would consider if this application handled more sensitive information?
3. If this system were to handle thousands of student records, how would you optimize it to prevent slow loading and updating times?

**GitHub & Collaboration**

1. How did you ensure that all group members contributed equally? Explain how GitHub allowed for effective collaboration.
2. Describe any challenges you faced when setting up the GitHub repository and linking it to your project. How did you resolve them?
3. How did your team handle the distribution of tasks? What measures did you take to ensure consistency in code style and functionality?

**Technical Knowledge Extension**

1. If the project requirements included an additional feature (such as search by student course), how would you implement it? Explain the code changes and logic adjustments needed.
2. What are some ways you could implement automated testing to validate that your system works as expected after every update?
3. Imagine you had to make this application web-based. What changes would be required in terms of code structure, tools, and user interface?
4. These questions can help the students demonstrate their understanding of their project and their ability to apply theoretical knowledge to practical scenarios.