1. **What is the difference between a spreadsheet and a database?** Spreadsheet: Organizes data in rows and columns, suitable for small datasets. Database: Handles larger, more complex datasets with relationships between data elements.
2. **What are the advantages and disadvantages of using a spreadsheet for health data management?** Advantages: User-friendly interface for data entry and manipulation. Disadvantages: Limited capacity, performance issues, and data integrity controls for large datasets.
3. **What are the advantages and disadvantages of using a database for health data management?** Advantages: Scalable storage, powerful querying, and data integrity. Disadvantages: Requires technical expertise and higher setup/maintenance costs.
4. **What are some examples of tasks that can be performed using a spreadsheet?** Data entry, sorting, filtering, summarizing, calculations, charts, and visualizations.
5. **What are some examples of tasks that can be performed using a database?** Managing patient records, querying large datasets, generating reports, and multi-user access.
6. **What are some examples of tasks that can be performed using both a spreadsheet and a database?** Data entry, sorting, filtering, basic calculations, and generating reports.
7. **What are some examples of tasks that can be performed using neither a spreadsheet nor a database?** Real-time video processing, advanced machine learning model training, graphic design.
8. **What are some examples of tasks that can be performed using a spreadsheet but not a database?** Creating simple dashboards with interactive charts.
9. **What are some examples of tasks that can be performed using a database but not a spreadsheet?** Executing complex joins across multiple tables, handling transactions with ACID compliance.
10. **What are some examples of tasks that can be performed using both a spreadsheet and a database?** Importing/exporting data, performing basic statistical analysis, generating visual reports.