Q: What is the average, min, and max SST in a region during a specific time?
A: Use print_stats(sst_subset) after subsetting MODIS SST data.

Q: Are there SST anomalies near the equator?
A: Plot with sst_subset.plot(cmap="coolwarm") to reveal hotspots.

Q: How is SST distributed over a short time window?
A: Use sns.histplot(vals, kde=True) to visualize distribution.

Q: Do SST gradients match expected ocean currents?
A: Observe lat/lon patterns in sst_subset.plot(...).

Q: How do aerosol levels change with altitude?
A: Plot sns.scatterplot(x='Altitude', y=col) for each compound.

Q: Which aerosol pollutants are correlated?
A: Use sns.heatmap(aero_df.corr()) or sns.pairplot(...).

Q: Are there aerosol hotspots along the flight path?
A: Use plt.scatter(Longitude, Latitude, c=Organics).

Q: What time-based trends exist in aerosol data?
A: Plot plt.plot(Time, compound) for each pollutant.

Q: What does the ocean floor look like near the coast?
A: Use plt.contourf(bathy_sub.values) from bathymetry data.

Q: How does air temperature vary across space on a given day?
A: Use Cartopy + air.sel(time=...) to contour temperature.

Q: Can satellite overlays show land vs ocean features?
A: Use leafmap.add_layer(modis) or blue_marble.

Q: Where are population/data clusters?
A: Visualize GeoJSON with leafmap.add_geojson(...).

Q: Are there significant differences between groups?
A: Use stats.ttest_ind(a, b) for two groups.

Q: What themes dominate the project data?
A: Generate WordCloud(text).generate(...).

Q: Can we detect hidden relationships in multiple variables?
A: Use sns.pairplot() for pattern discovery.

Q: What are the aerosol outliers?
A: Use sns.boxplot(data=aero_df[aerosol_cols]).

Q: What does a full year of temp at one location look like?
A: Animate ts = ds.sel(lat=30, lon=240) over time.

Q: Is MODIS SST reliable near land edges?
A: Compare histogram output sns.histplot(...) near coast.

Q: How far apart are two data points?
A: Use geodesic((lat1, lon1), (lat2, lon2)).km.

Q: Where are the highest organics detected during flight?
A: Use color-coded plt.scatter(..., c=Organics).

Q: How complete is the aerosol dataset?
A: Visualize missing data with msno.matrix(aero_df).

Q: How does air temp change in vertical slices?
A: Slice NetCDF: air.sel(lat=slice(...), lon=slice(...)).

Q: Can we visualize MODIS imagery in real-time?
A: Use Leafmap with TileLayer(url=MODIS...).

Q: How do variables behave when standardized?
A: Apply StandardScaler().fit_transform(...).

Q: What does a rolling average show over time?
A: Use series.rolling(10).mean().plot().

Q: What are the best formats to save cleaned data?
A: Use df.to_csv(), to_excel(), or to_parquet().