**R Shiny Dashboard Outline: Crab Age Prediction**

App Name:

**Crab Age Predictor**

Title Panel:

**"Crab Age Prediction Dashboard"**

Sidebar Panel:

**Input selectors for physical attributes:**

* Sex (dropdown: Male, Female, Infant)
* Length (numeric input or slider)
* Diameter (numeric input or slider)
* Height (numeric input or slider)
* Weight (numeric input or slider)
* Shucked Weight (numeric input or slider)
* Viscera Weight (numeric input or slider)
* Shell Weight (numeric input or slider)

Main Panel (with tabs):

**Tab 1: Predicted Crab Age**

* Display predicted age output based on inputs
* Show model type used (e.g., Linear Regression, Random Forest)
* Show prediction accuracy metrics (MAE, RMSE)

**Tab 2: Data Exploration**

* Plots showing relationships between features and age
* Correlation heatmap
* Scatterplots of top predictors vs. age
* Distribution plots for features

**Tab 3: Model Performance**

* MAE and RMSE values on train/test sets

**Possible Enhancements**

* Allow selection of model type (choose between linear regression and random forest)
* Display residual plots for diagnostic checks
* Show predicted vs actual plots
* Export predictions for new data

**Color Palette**

* Purple
* Blue
* Orange
* White

**Colors will match the colors on the slide show**