Lab 7: Implementing Cross Validation (CV)

YOUR NAME HERE

> **💡 Getting Started**
>
> 1. Download the `.qmd` file from Moodle and any needed `.xlsx` or `.csv` data files. Save these in the *same folder/directory*.
>
> 2. Open the Quarto file in RStudio: `File > Open File... >`. If you're working on the MHC RStudio server, you need to upload the files first: go to the `Files` panel, then click `Upload`. Upload the `.qmd` file and any data files. You will need to upload each file one at a time.
>
> 3. Update the author and date in the YAML header of this file.
>
> 4. Click the `Render` button. If successful, you should have a new window pop up with a nice looking HTML document.
>
> **Ask for help** if you encounter issues on any of the steps above. Once you've successfully made it through these steps, you can continue.

> **ℹ Goals**
>
> - Build a linear regression model of the height (in feet) of a black cherry tree given its diameter in inches (X)
> - Use k-fold cross validation to evaluate strength of this predictive (linear regression) model

Context

- **Broader subject area: supervised learning**
  We want to build a model for some output RV Y given various predictor RVs $X_1, \dots, X_p$.