# Project Structure

Project files located [here](https://teams.microsoft.com/_#/files/Data%20and%20Analysis%20Tools?threadId=19%3Ae25b544e78754a259bce1d93bfe9eea0%40thread.tacv2&ctx=channel&context=PIT%2520Harvest&rootfolder=%252Fsites%252FDFW-TeamFPColumbiaRiverManagementUnit953%252FShared%2520Documents%252FData%2520and%2520Analysis%2520Tools%252FPIT%2520Harvest).

1. R Project file “PIT\_Harvest”
   1. code - contains the r scripts
   2. data - contains standalone data files (esp. population lookup)
   3. models- contains JAGS model files
   4. results- stores results output
2. Databases “PIT\_Harvest\_DBs”
   1. Currently set up to run on local copy in Documents: C:/data/PIT\_Harvest\_DBs
   2. In 2020 the database was "PIT\_Harvest\_Database V3.1 - 03.24.2021\_5pm.accdb"

# R scripts

1. **packages.r**: loads required packages for analysis
2. **functions.r**: contains functions used for gathering and preparing data for JAGS and running the models. This script sources packages.r, has an outline (click in upper right of script window to pop out).
3. **tables.r**: generates necessary tables to prep data for analysis. Has an outline (click in upper right of script window to pop out).
4. **sport\_run.r**: preps data for sport fisheries and runs models. Line 47 saves the entire data/results as an RDS for later analysis.
5. **commercial\_run.r:** preps data for lower river commercial fisheries and runs models. Line 63 saves the entire data/results for later analysis.
6. **treaty\_run.r**: preps data for Z6 treaty fisheries and runs models. Line 65 saves the entire data/results for later analysis.
7. **results.r**: does some plots for report. Can pull in any of the sport, commercial or treaty results depending on what you need by reading in the RDS objects saved in steps 4-6. Right now all the years/species/fisheries are hard coded in as treaty chinook fisheries in 2019.

General workflow is (XXX for sport, commercial, and treaty)

packages.r --> functions.r --> tables.r --> XXX.run --> results.r

# PIT Harvest R Workflow

1. Access database should be stored locally for performance (they are slow over the S: drive).
2. Query names are coded in so be aware if any of the Access queries are renamed.
3. Once database is ready for analysis move to your PC and update the path in the connect\_db() function in functions.r . If the Access DB is in a folder called PIT\_Harvest\_DBS in your Documents, the current path should still work.
4. Each year be sure to update the population lookup (“pop\_strata\_2011-XXXX.xlsx”) with new PIT groups.
5. Once database and population lookup are ready, run “tables.r” and check to make sure everything looks right.
6. Once you are satisfied with the data in tables, run each fishery model.
7. Process results. In 2020 we used 2019 Treaty Chinook as an example.