# Rust BuildOn #4

Jim Fawcett

https://JimFawcett.github.io

March 26, 2021

### Build-On

- Learn Rust in small steps
- Start with a simple Rust demo
  - Text Finder
- Build on that in interesting ways, e.g., for Text Finder:
  - Add capability command line parsing, directory tree walking, ...
  - Use generics plugin components
  - Use threads parallel text searches, thread pool based dir traversal
  - Use library components
- Discord server
  - Q&A
  - Comments

## BuildOn Timeline: Bi-Weekly Sessions

- Session #1 BuildOn Introduction & Rust Preview
- Session #2 Project Introduction & Some Rust details
- Session #2 Step #1: TextSearch -> Functional package with demo
- Session #3 Step #2: DirNav ->
- Session #4 Step #3: CmdlnParser ->
- Session #5 **Step #4**: Executive, Display -> Functional project
- Session #6 RegEx Extension ?
- Session #7 Parallel Text Searh ?

## BuildOn Session #3 Topics

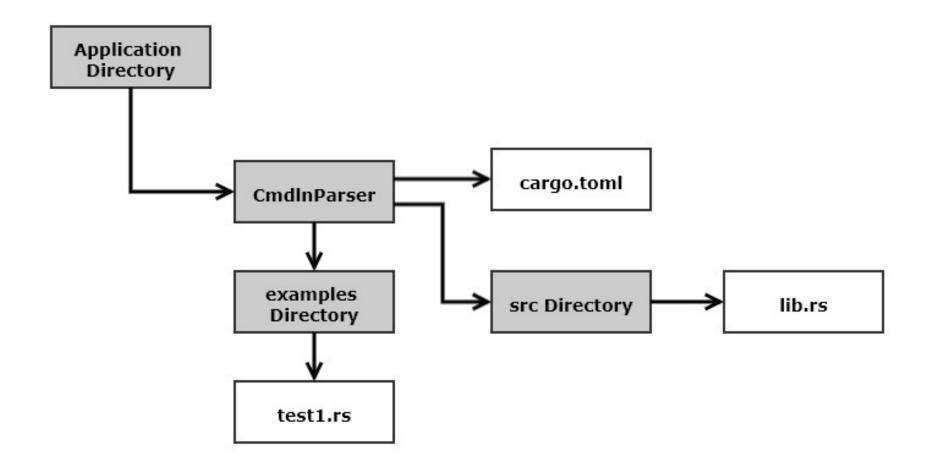
#### Focus: DirNav & CmdInParser Packages

- Step #2 DirNav
  - Solution Code
  - Generate documentation
    - Document-private-items
    - Run clippy
- <u>Step #3</u> CmdlnParser
  - No starter code
  - Design ideas
    - Run parser
- CParser Design
  - Hashmap<String, Vec<String>>
  - Two parts
    - Reusable parser
    - Application specific attributes w/defaults

#### Focus: Design, then Rust

- BuildOn click on BuildOn code
- Iterators
- Idiomatic Rust
- Anim Features
- DesignBites
- Questions?

# Rust Project Structure for CmdInParser



### BuildOn

- Session #3
  - DirNav
- Session #4
  - CmdInParser
- Session #5
  - Executive & Display
- Session #6?
  - RegEx Search
- Session #7?
  - Parallel Text Search

# That's All Folks!