## Rust BuildOn #3

Jim Fawcett

https://JimFawcett.github.io

March 12, 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

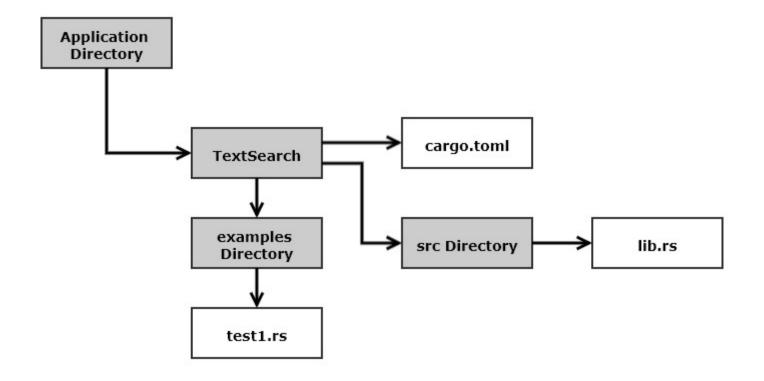
#### Focus: TextSearch & DirNav Packages

- Step #0
  - Run TextFinder
  - DesignBites Intro
- <u>Step #1</u> TextSearch
  - A TextSearch Solution
- Step #2 DirNav
  - RustStory Libraries.html#fs
  - std:fs
- BuildOn

#### **Focus: Rust**

- RustBites: Generics & Traits
- Iterating over Generics
- <u>RustStory: Traits</u> dynamic dispatch
- Enumerations
  - Custom Enumerations and matching
  - Non-Enum matching
- RustBites: Options
- RustBites: Error Handling
- Anim Features
- Questions?

## Rust Project Structure for TextSearch



### BuildOn

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

# That's All Folks!