

Module System - Crates and Modules

How to organize Code

- Crate: Tree of modules producing a library or executable.
- Crate Root is source file that Rust compiler starts from to make up root module of crate
 - Binary Crates – Crate Root: `src/main.rs`
 - Library Crates – Crate Root: `src/lib.rs`
- Package: A bundle of one or more crates
- Module: Collection of items like functions, structs, traits and impl blocks
 - The *use* keyword creates shortcuts to items
- Paths: A way of naming an item to show Rust where to find an item in a module tree
 - Absolute path – Full path starting from crate root
 - Relative Path – Starts from current module (`self`, `super`)

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- When declaring a module in crate root (garden module), the compiler looks in these places:
 - Inline
 - In *src/garden.rs*
 - In *src/garden/mod.rs*
- Submodules: Declare *mod vegetables* in *src/garden.rs*
 - Inline
 - In *src/garden/vegetables.rs*
 - In *src/garden/vegetables/mod.rs*