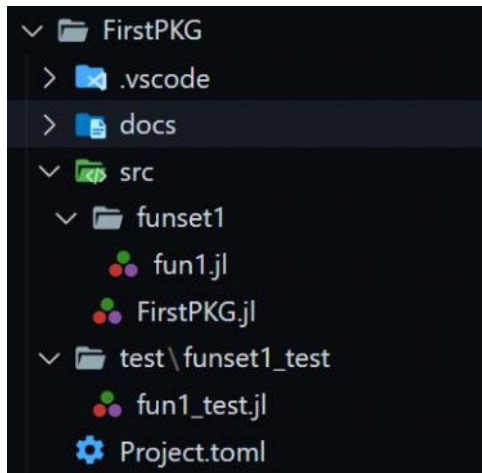


Julia库开发

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1. Julia REPL中通过cd命令切换目录为需要存储新建库的目录

```
>> cd("D:/Program Files/Julia/JuliaWork")
```

通过pwd()可返回当前工作目录

```
julia> cd("D:/Program Files/Julia/JuliaWork")  
  
julia> pwd()  
"D:\\Program Files\\Julia\\JuliaWork"
```

2.]进入包模式，执行激活操作

```
(@v1.6) pkg> activate .
```

```
(@v1.6) pkg> activate .  
Activating new environment at `D:\Program Files\Julia\JuliaWork\Project.toml`  
  
(JuliaWork) pkg>
```

3. 创建自定义包

```
(JuliaWork) pkg> generate FirstPKG
```

```
(JuliaWork) pkg> generate FirstPKG  
Generating project FirstPKG:  
FirstPKG\Project.toml  
FirstPKG\src\FirstPKG.jl
```

4. 包注册

```
(@v1.6) pkg> dev "D:/Program Files/Julia/JuliaWork/FirstPKG"
```

```
(@v1.6) pkg> dev "D:/Program Files/Julia/JuliaWork/FirstPKG"
Resolving package versions...
Updating `C:\Users\Bingrui Bao\.julia\environments\v1.6\Project.toml`
[95990e37] + FirstPKG v0.1.0 `D:/Program Files/Julia/JuliaWork/FirstPKG`
Updating `C:\Users\Bingrui Bao\.julia\environments\v1.6\Manifest.toml`
[95990e37] + FirstPKG v0.1.0 `D:/Program Files/Julia/JuliaWork/FirstPKG`
```

注意需要在根目录下进行注册

5. 库函数开发

在src文件夹中按照库目录结构创建文件夹与文件，库函数开发均在其中进行函数的帮助，即help模式使用"""开始，"""结束，与函数体之间没有空行
所有开发的函数均用ty_开头

```
1 using LinearAlgebra
2 """
3 求取sin(x)
4 """
5 function sinte(x)
6     return sin(x)
7 end
```

6. 添加引用与函数导出

在src顶层文件（库同名jl文件）中，添加引用并导出库函数

```
1 module FirstPKG
2 include("funset1/fun1.jl")
3 export sinte
```

7. 函数测试

在test文件夹中，【最佳实践】按照库函数的组织结构创建目录与测试用例

```
1 using FirstPKG
2 y=sinte(20)
```

8. 添加依赖库

```
julia> using TyMath
[ Info: Precompiling TyMath [f3e03b70-54fa-45d2-b127-9119d2067c27]
Warning: Package TyMath does not have SparseArrays in its dependencies:
- If you have TyMath checked out for development and have
  added SparseArrays as a dependency but haven't updated your primary
  environment's manifest file, try `Pkg.resolve()`.
- Otherwise you may need to report an issue with TyMath
Loading SparseArrays into TyMath from project dependency, future warnings for TyMath are suppressed.

julia> cd("E:/11-SVN/MwSyslabLib/trunk/SYSLAB_Lib/TyMath")

(@v1.6) pkg> activate .
Activating environment at `E:\11-SVN\MwSyslabLib\trunk\SYSLAB_Lib\TyMath\Project.toml`

(TyMath) pkg> add SparseArrays
Updating registry at `C:\Users\Bingrui Bao\.julia\registries\General`
Updating git-repo `https://github.com/JuliaRegistries/General.git`
Resolving package versions...
```

```
julia> using TyMath
[ Info: Precompiling TyMath [f3e03b70-54fa-45d2-b127-9119d2067c27]
[ Warning: Package TyMath does not have SparseArrays in its dependencies:
- If you have TyMath checked out for development and have
  added SparseArrays as a dependency but haven't updated your primary
  environment's manifest file, try `Pkg.resolve()`.
- Otherwise you may need to report an issue with TyMath
Loading SparseArrays into TyMath from project dependency, future warnings for TyMath are suppressed.

julia> using Pkg

julia> Pkg.resolve()
No Changes to `C:\Users\Bingrui Bao\.julia\environments\v1.6\Project.toml`
No Changes to `C:\Users\Bingrui Bao\.julia\environments\v1.6\Manifest.toml`
```

注意事项

1. 库包括4个部分主体内容：源码、测试、文档、记录
2. 每日从SVN中拉取库
3. 每晚结束开发后，提交库至SVN，最后提交的一位，负责解决可能的冲突
4. 目前的开发模式：库函数开发→添加引用与函数导出→函数测试
5. 函数测试，对标MATLAB帮助中的测例