

Name: Lin Shi, Muzhou Chen

Question 1:

a).

1. YAJSW is a java alternative for tanuki java service wrapper. It implements a multitude of additional functions which could be easily extended.
2. YAJSW is a java centric implementation of the java service wrapper by tanuki. It aims at being mostly configuration compliant with the original. However, it adds additional items such as win64 support.
3. 56,453 lines of code. I did a simple java program that iterate through each file to count the lines.

b).

1.

Found 59 files that possibly contain design patterns.

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\application\jmx\remote\client\RPCClientMixinPipelineFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\application\jmx\remote\client\RPCClientSessionPipelineFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\application\jmx\remote\server\RPCServerMixinPipelineFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\application\jmx\remote\server\RPCServerSessionPipelineFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\application\jmx\remote\service\JmxSerializerFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\application\jmx\remote\service\MBeanServerConnectionAsyncAdapter.java

Possible patterns: Adapter

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\auth\AuthTokenListFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\bootstrap\ChannelPipelineFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\bootstrap\ChannelPipelineFactoryBuilder.java

Possible patterns: Builder, Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\bootstrap\ChannelPipelineFactoryFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\crypto\StreamCipherFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\rpc\callback\ServerCallbackProxy.java

Possible patterns: Proxy

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\rpc\client\AsyncHessianProxy.java

Possible patterns: Proxy

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\rpc\client\HessianProxyFactory.java

Possible patterns: Factory, Proxy

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\rpc\client\HessianProxyFuture.java

Possible patterns: Proxy

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\rpc\client\SyncHessianProxy.java

Possible patterns: Proxy

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\rpc\message\MappingSerializerFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\ahessian\session\SessionFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\ahessian\src\main\java\org\rzo\netty\mcast\bridge\MulticastAdapter.java

Possible patterns: Adapter

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\app\src\main\java\org\rzo\yajsw\app\WrapperManagerProxy.java

Possible patterns: Proxy

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\build\src\main\java\org\rzo\builder\JarBuilder.java

Possible patterns: Builder

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\build\src\main\java\org\rzo\builder\PolicyFileBuilder.java

Possible patterns: Builder

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\client\AbstractHessianConnectionFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\client\HessianConnectionFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\client\HessianProxy.java  
Possible patterns: Proxy

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\client\HessianProxyFactory.java  
Possible patterns: Factory, Proxy

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\client\HessianProxyResolver.java  
Possible patterns: Proxy

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\client\HessianURLConnectionFactory.java  
Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\io\AbstractSerializerFactory.java  
Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\io\BeanSerializerFactory.java  
Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\io\ContextSerializerFactory.java  
Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\io\EnvelopeFactory.java  
Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\io\ExtSerializerFactory.java  
Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\io\HessianDebugState.java  
Possible patterns: State

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\io\HessianFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\io\HessianInputFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\io\IteratorDeserializer.java

Possible patterns: Iterator

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\io\IteratorSerializer.java

Possible patterns: Iterator

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\io\SerializerFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\hessian\src\main\java\com\caucho\hessian4\services\client\ServiceProxyFactory.java

Possible patterns: Factory, Proxy

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\io\netty\util\internal\logging\InternalLoggerFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\io\netty\util\internal\logging\JdkLogger2Factory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\io\netty\util\internal\logging\SimpleErrorLoggerFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\io\netty\util\internal\logging\SimpleLoggerFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\action\ActionFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\controller\jvm\ControllerPipelineFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\groovy\WrapperBuilder.java

Possible patterns: Builder

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\script\ScriptFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\timer\TimerFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\tray\WrapperTrayIconFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\util\CommonsLoggingAdapter.java

Possible patterns: Adapter

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\util\ConfigurationLoggingAdapter.java

Possible patterns: Adapter

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\util\DaemonThreadFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\util\MyPatternFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\util\SimpleThreadFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\wrapper\StateChangeListener.java

Possible patterns: State

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\wrapper\TrayIconProxy.java

Possible patterns: Proxy

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\wrapper\WrappedProcessFactory.java

Possible patterns: Factory

C:\Users\Lin\Desktop\yajsw-stable-12.14\yajsw-stable-12.14\src\yajsw\src\main\java\org\rzo\yajsw\wrapper\WrappedServiceFactory.java

Possible patterns: Factory

2. Once it is called, it has a for loop for each file, within this for loop, it will call another method to check if it contains patterns. It will use each pattern definition to check if it contains the pattern, if it does it will add to the list.
3. No. I found when the search in file content is checked, the code had another streamReader ReadToEnd code, which means the program was not reading all the way to the end. This means the program could be missing design patterns; however, it does mean the program will find the easier design patterns with a much better performance. I would do it the long way, looking for each design pattern and every time where instance of class are called. Although this is worst in performance, it will find every single design pattern.

## Question 2

1. Once the repository has been created, there is an uploading an existing file included, which is where I could drag and drop. UserNames: LinShi11 muzhouchen

```

DickHead@DESKTOP-3PPQ4ME MINGW64 ~/Desktop/ESOF-322-master (master)
$ git init
Reinitialized existing Git repository in C:/Users/DickHead/Desktop/ESOF-322-master/.git/

DickHead@DESKTOP-3PPQ4ME MINGW64 ~/Desktop/ESOF-322-master (master)
$ git add .

DickHead@DESKTOP-3PPQ4ME MINGW64 ~/Desktop/ESOF-322-master (master)
$ git add README.md
fatal: pathspec 'README.md' did not match any files

DickHead@DESKTOP-3PPQ4ME MINGW64 ~/Desktop/ESOF-322-master (master)
$ cd ESOF-322-master

DickHead@DESKTOP-3PPQ4ME MINGW64 ~/Desktop/ESOF-322-master/ESOF-322-master (master)
$ git add README.md

DickHead@DESKTOP-3PPQ4ME MINGW64 ~/Desktop/ESOF-322-master/ESOF-322-master (master)
$ git push http://github.com/LinShi11/ESOF-322.git
fatal: The current branch master has no upstream branch.
To push the current branch and set the remote as upstream, use

    git push --set-upstream http://github.com/LinShi11/ESOF-322.git master

DickHead@DESKTOP-3PPQ4ME MINGW64 ~/Desktop/ESOF-322-master/ESOF-322-master (master)
$ git push http://github.com/LinShi11/ESOF-322.git master
warning: redirecting to https://github.com/LinShi11/ESOF-322.git/
To http://github.com/LinShi11/ESOF-322.git
 ! [rejected]        master -> master (fetch first)
error: failed to push some refs to 'http://github.com/LinShi11/ESOF-322.git'
hint: Updates were rejected because the remote contains work that you do
hint: not have locally. This is usually caused by another repository pushing
hint: to the same ref. You may want to first integrate the remote changes
hint: (e.g., 'git pull ...') before pushing again.
hint: See the 'Note about fast-forwards' in 'git push --help' for details.

DickHead@DESKTOP-3PPQ4ME MINGW64 ~/Desktop/ESOF-322-master/ESOF-322-master (master)
$ git push http://github.com/LinShi11/ESOF-322.git master:version1
warning: redirecting to https://github.com/LinShi11/ESOF-322.git/
Enumerating objects: 7, done.
Counting objects: 100% (7/7), done.
Delta compression using up to 16 threads
Compressing objects: 100% (6/6), done.
Writing objects: 100% (7/7), 627.95 KiB | 28.54 MiB/s, done.
Total 7 (delta 0), reused 0 (delta 0)
remote:
remote: Create a pull request for 'version1' on GitHub by visiting:
remote:   https://github.com/LinShi11/ESOF-322/pull/new/version1
remote:
To http://github.com/LinShi11/ESOF-322.git
 * [new branch]        master -> version1

DickHead@DESKTOP-3PPQ4ME MINGW64 ~/Desktop/ESOF-322-master/ESOF-322-master (master)
$ |

```

2.