Singleton Pattern:

Not more than one instance per JVM.

Class A

{

Private static A obj;

Private a()

{

}

Public static A getInstance()

{

Obj = new A();

Return obj;

}

}

Cloning – that can eliminate singleton .

Prototype:

We have an instance and we want to create new objects by copying that prototype.

1. Interfaces
2. Abstract Class

Public abstract class Bank

{

Public abstract Bank getName();

}

Public CitiBank extends Bank

{

@override

Public Bank getName()

{

Bank citi = new Bank();

Citi.name = “CitiBank”

Citi.ir = “”;

Return citi;

}

}

Factory

Abstract factory

Builder

Observer

Strategy

DI

IOC

3

5

3 5

If(number %3 === 0 && number % 5 == 0)

{

Syso(catdog)

}

Else if(number %3 ==0)

Cat

Else if(number % 5 ==0)

Dog

Else

Neither

Generics:

Collections:

List<Integer> myList = new ArrayList();

myList.add(1);

//myList.add(“Java”);

|  |  |
| --- | --- |
| ArrayList | LinkedList |
| Dynamic Array | Doubly Linked List |
|  |  |
| Storing and accessing | Manipulation |

Map internally working.

String reverse.

JavaTPoint:

Spring:

DI:

IOC:

Framework used for J2EE.

Wrapping data and methods that operate on it in a single entity.

1. Modular
2. POJO -Plain Old Java Object.

1.public- anywhere

2. private- only with in class

3. Default- only in the package.

4. Protected: in the package as well as to the subclass outside the package.

1. Testability:
2. Lightweight:EJB
3. MVC,Transaction Management,
4. Central Exception Handling

Ioc Containers: create the objects,wiring them together, configuration and managing them

Entirely.

XML,3 onwards annotation,java

1. BeanFactory
2. ApplicationContext

**Bean: Object which is mainained by IOC containers.**

**Bean Lifecycle:**

**@Bean**

Bean Scopes:

1. Singleton- Default- one Instance per IOC @Singleton
2. Prototype@prototype
3. Request@RequestScope
4. Session @SessionScope
5. Global Session-@ApplicationScope
6. WebSocket

Internal Workings Of Map:

Hashing Principle.

Hashcode ,equals

Entry-Object

Bucket -Linked List ( Binary Search Tree- Java8 ).

Hash Collision

public class Reversal {  
  
  public static void main(String[] args) {  
         String str;  
         System.out.println("Enter your username: ");

// Java  
         Scanner scanner = new Scanner(System.in);  
         str = scanner.nextLine();  
         Reversal reverse = new Reversal();  
         String reversed = reverse.reverseString(str);  
         System.out.println("The reversed string is: " + reversed);  
     }  
  
     public  String reverseString(String str)  
     {  
         if (str.isEmpty())  
             return str;  
         return reverseString(str.substring(0, str.length()-1));  
        // return reverseString(str.substring(1)) + str.charAt(0);  
     }  
 }

[Reply in private](res://\\G2MResource_en.dll/%3cA%20HREF=%22%3conLeftClick%3eeCMD_SetChatTo%20103%3c/onLeftClick%3e%3conRightClick%3eeCMD_DoAttendeeContextMenu%206750220%3c/onRightClick%3e%22%3e%3c/A%3e)

**8:57 AM**

[**VISHAL PANNALA**](res://\\G2MResource_en.dll/%3cA%20HREF=%22%3conLeftClick%3eeCMD_SetChatTo%20105%3c/onLeftClick%3e%3conRightClick%3eeCMD_DoAttendeeContextMenu%206881292%3c/onRightClick%3e%22%3e%3c/A%3e)

public  String stringReverse(String str) {  
  if(str.length()== 0) {  
   return "";  
  }  
  else if(str.length() == 1) {  
   return ""+str.charAt(0);  
  }else {  
   return str.charAt(str.length()-1) + stringReverse(str.substring(0, str.length() -1));  
  }  
 }

Spring MVC:

MVC:

Separation Of Concern(SOC)

Model: Data layer

View : Presentation Layer

Controller: Business Logic,

IDE,

ANT

Maven

Pom,

Settings.xml

.m2

Source Code : GitHub

Gradle

Spring MVC Request flow:

FrontController/DispatcherServlet

HandlerMapping

Controller

Modelandview

Java is awesome

Avaj si emosewa

Java 8 Features: Stream, Functional Interfaces, Lambdas,

DatandTime,,Concurrency

PermGen removal

CRUD:

Create -Post

Read -Get

Update -Put

Delete-Delete

Http Verbs:

Stateless:

Resource:

|  |  |
| --- | --- |
| Retrieve info from server | Create a resource |
| They are always part of URI | As body |
| Less Secure | Secure |
| Restriction Data length | No such restrcition |
| Bookmarked/cached | Not Possible |

Idempotent:

Put /user/123

Post /user/123

Head/Patch/Options.

User

Id name email address

202 vishal [vishal@gmail.com](mailto:vishal@gmail.com) asdasdsdv

201 vishal

Rest vs

|  |  |
| --- | --- |
| Rest is an architecture | Protocol |
| No restriction on Data | XML |
| JSojn-Lightweighted and better performance | Heavy /not as good as rest |
| No Inherit security layer | Ws-Security |
| Http | TCP/Http |

Soap

Spring MVC:

Client- request-DispactherServlet-HandlerMappings- Controller-Return Model and View-DispatcherServlet-Send the Model Object to ViewResolver

DAO: data access Objects

One To Many

Many To Many:

404

400

200

201

304

500

502

@Controller @RestController

@Controller and @ResponseBody

@Qualifier

Interface Base

{

}

@Component(“sampleBase”)

Class SampleBase implements Base{}

@Component(“exampleBase)

Class ExampleBase implese Base{}

Class BaseController

{

@Autowired

@Qualifier(“exampleBAse”)

Base obj;

}

One minute please

@Configuration

@Component vs @Service Vs @Repository vs @ Configuration

Model- Data

ModelandView – data and UI

Sprint Cycle: 3 weeks

Team Size: 8-14

Qa,Devs,BA,Scrum Master, Devops