served Request Interface attil thereto and as tolved tolve -An object of Severelet Request is used to provide the client request injormation to sewlet such as content type, Content length, parameter names & Values, header informations il Limit 1 test ") say I from a to me il attributes etc. Point Waiter pas des Ser Moiten 1. Hethody Public String get Parameter (String name) - used to obtain the value of parameter by name. - Container - different components i.e., multiple clients to mean the Rever then the operation is performed in → Printh → Print stream → Java. 10 system out out and mules " does some " timbus" = sapt sugar >) res. set Content Type ("text/HTML"); whe content gets displayed in text or html method and its. pointwoites out= oes, getwoites (); - andidiste made sidely Example of Sewlet Request to display the name of user we getparameter method that returns the value for the given request parameter name Index-html Lform action: "Servell Reg Demo " method = get > Enter yourname < input type = text " name = name > 260> Linput type = "Submit" value = login > arithmetic operation of 1) int too gategor. page Int (17 st): > Sewlet examples "Streets I tolesman regulate and ant 758C zmain as due 6 toi >webapp >index. html ! ['add] i wanted to go of i

Public class Servlet Reg Ocmo extends Http Servlet in & Server & June C protected void do Giet (HHPS exvlet Request req, HHPS exuber Response ses) throws Servict Exception, RoException Content length, francometer names El Values, headen informatiza a. Pributar etc. des. set Content Type ("text/html"): Methody Point Waiter pw= ses, get Woiter(); Stoing name = ver get Parameter (name); PW. pointln ("welcome " + name); instances - different longuments i.e., trustiple Chieses to rea < form action = "Arth Demo" method = "get"> " and some of set" > " and set of set" > " and set of set" > " and set of set Enter first number: Linput type: text 'name = first'>= 60 × 60) Linput type , " Submit ' name : add " value : add's Linput type = "Submit' name = "sub" Value "sub" > To sectioners by a ("tent | 119112"); who content gets displayed !! Arth Demo Javalana hartil on test Public class Asth Demo Extends solines top 1000 et 100. estimators comple of souriet Request to display the massin of wen the getparameter method that between the value for the String first : request get Parameter (first); String second = request get Parameter C'second is if (first equals () 11 Second equals ()) out pointly C'Entor both numbers for making withmetic operations) int from Integer - parseInt (first); california to lustic int sno = Integer passe Int (second); PLOORS int result =0; gradiene If (request get Paramotor ('add') [= NULL)

desult = fno +sno; remark() wishad out pointly ("2000 abox Addition is: " Housell); Sevelet "). Consund (de guare, Request Disportcher in Servet Labret Grade -> Provides the facility of dispatching the neguest to another suspurce it may be ntml flowlet or 139. stated touching at exect to occupance the flushing -1 2 methods Opublic void forward (Sewlet Request, Scrulet Response response) throws Servlet Exception, Java. io. 10 Exception: a request from a flervet to another resource. 2) public void include (Servlet Request, Servlet Response response) throws Servelet Exception java. io. 10 Exception 2) forward; Seaulet 1 solution of the Response plantast BURENOUS B to server the Response is is sent back to server to server the server the server to server the server the server to server the server selegise to particular obusing west 1) Request (servet 1) Servlet 2 3) Response of H) final sessionse System Serviet 2 1 Response 5) dinal despone included in Servet 1 us sent back to RUPONSE respore Client Send Region () The GerdRedirect() method of Http3ervletResponse interjace can be used to redirect response to another obscure it may be sewlet (or) jsp (or) html/le.

Send Request () method forward () method Egy sequest, get Request Dispatcher & sesponse. Send Repost Redione C'Servitz"). boward (request, C'Servitz); desponse); equal Vigatches in Boulet works at sever side works at client side. fession Toacking techniques India as you it somewhat session toacking is used to occognize the Particular uses 4 techniques - Cookies Hiden From Field & client Side nears a Power of Sources in Session means a particular interval of time. Session Pracking is a way to maintain state(date) of an user. It is also known as session management in Sowlet. Http protocol is Stateless so we need to maintain state using session tracking techniques. Each time when a Sovver makes suggest it considers as a now neguest. so we need to maintain the State of an ever to recognize to particular request (cookies ic, Accept cookies) Servey

Servey

3) School req. (new)

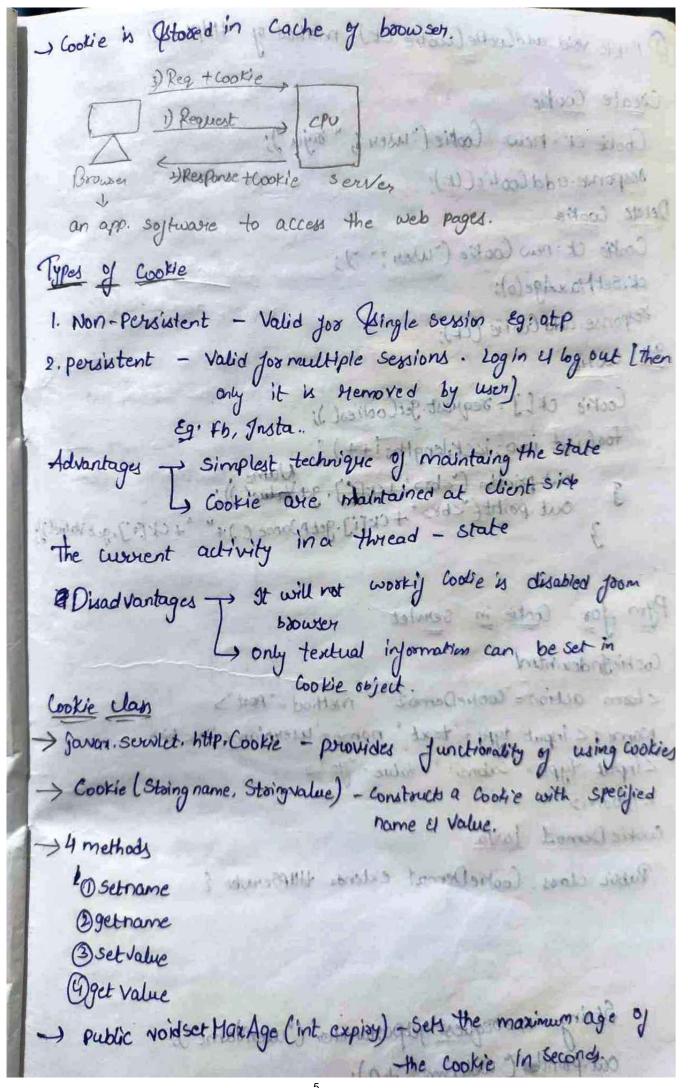
(one of the sequent (new)

2) desponse

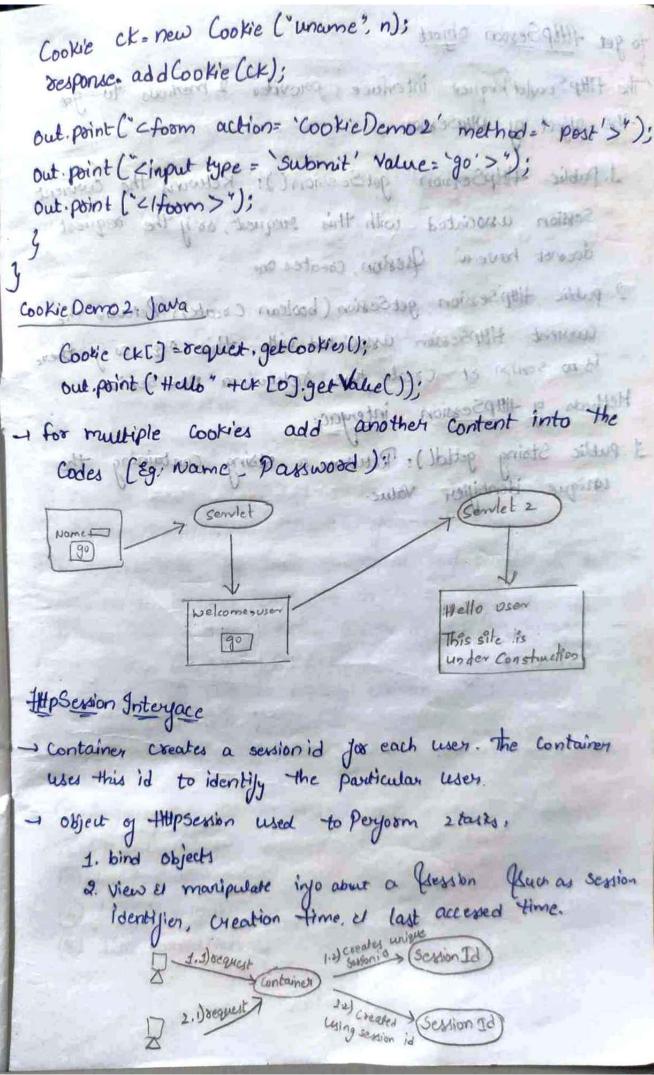
Cookie is a small place of information that is pensisted between the multiple Client requests

I have a name, single value, optional attributes South as

a Comment, Path el domain qualificis, a maximum age el a Version no



O public void add Cookie Ct.): method of Atthesinet Create Cookie Cookie CK = new Cookie ("user", " raju"); desponse add Coolie(CK); Delete Cookie Cookie CK=new Cookie ("Usen;"); add Cookers ck, SetHaxAge(o); desponse add Cookie (CF); get Cookied is appl . Andige " sigistum sof ther - trastations. Cookie CK[] = request getCookies(); for (int i=0; leck, length; i++) { Hame; out pointly ("Lbo) + ce(); out.point("<bo> + ck[i].getName C)+" +ck[i].getValled) a Disadvantages to the the water is looked in the test of the Pgm for Cookie in servlet more de Cookie Index. html and antonio law to place cform action = "CookieDemo1" method = "Post"> Name: < Input type = 'text' name = 'userName'> < b>> Linput type - "Submit" value - "90"> 2/form the side a direction - Contract a looks with sman prints I side a Cookie Demo 1 Java 13 sout of methods Public class Cookie Demail extends Httpserver & to set care DOPPERSON middle (8) (1) get value Stoing n= request getpartameter ("werName") out pointle (welcome + 1);



to get AlttpSession Object

The HttpSession object interface provides 2 methods to get

The Object of HttpSession

- 1. Public Althogossion get Session (): Returns the current Session associated with this request, or if the request does not have a Gession, creates one.
- 2. public HHPSession get Session (boolean create): Returns the Current HHPSession associated with this one, or if there is no session of create true oreturns a new Session.

 Methods of 11405.

Hethods of HttpScssion interface

1. Public String getIdl). Retwens a string containing the unique Hentifier value.

contained treated a session of the each ween the contained when this is to identify the particular users object of tillpoenies used to Perform stairs.

I hind objects

S. View & manipulate into anux a levium than as session

| | JOBC | | |
|--------------------------------------|---|--|--|
| | Java database Connectivity - It is a Java -API to connect & | | |
| | to the Vac | | |
| _ | Java. 591 package provides predefined functionalities [classifictions of all the | | |
| _ | Java. Sel package provides preograme junctionalities constraints a description of all the software of a product or software. | | |
| | Jeatures et a product 68 Software. | | |
| - | + It represents causes with each other | | |
| | Hoposesents classes exinterpaces that Isophware programs Can Jollow to Communicate with each other. Can Jollow to Communicate with each other. | | |
| | Can Jollow to Communicate with applications, lib, 05 etc. we can An App can be created for applications, lib, 05 etc. we can make communication with database. JOBC API O connect to database | | |
| | JOBC API | | |
| | © Execute queries il update statements to database | | |
| ŀ | | | |
| ŀ | 17 1 1 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | | |
| JOBC Driver is a Gojtware Compensate | | | |
| ı | Opplication - interact Dilli | | |
| ı | Connectivity | | |
| ı | Hasting of John Doller Doller James Doller | | |
| 8 | (a) was says Dental Dolver | | |
| | (9) Thin Driver | | |
| | -15 steps to connect any java application with database using | | |
| | JOBC | | |
| 4 | 1) Register the Doiver class | | |
| | CO COLLING SOCIETION | | |
| | (3) (xonte Statement | | |
| | 4 Execute quevies | | |
| | (B) More Connection | | |

- squ - dotabase

Cade in book myse issued of the avot all IP - privil some sudotab avot TEE 0: \CSE 20. TXT > It helps to coeate a file & stores the Notee; - Coming out from session ap is a document that 1 project of his → A JOBC, is a Simple Java project Steps depresents classes that interpret that file > New > Java project ProjectName - JOBC CSE-D, finish Right click on soc, New Schoos > () Juffle Bath O connect to database mysql-connector-java - 5.1.23-bin.javi - path mysql 5.5 version need to be downloaded we get an JOBC environment to write code Run button, - Run the java application 4 types -- @ TOBE - 00BE Bridge drivery cloud (Paper) -> DATABASE - logically correlated data offering wat organization -) DBHS- Software environment where the data can be Store d'in Convinent il egjicient manner in an organization (Type of Pen) -> HYSQL - Type of a DBHS - wort to large pargical when we want to access multiple junctionalities (societys) Oracle, etc). 90, multiple things can be used. -> SQL - Interface - SQL is a interface database. user - sgr - database

> for Name () is a Static method of the jovalang class -) getConnection() method of Doiver Manager class is used to establish Connection with the database -) The create Statement (I method of Connection interpace is used to coeate Statement. - Connection integace se son prisques shie novos reams that Isp code is pooceased on web servicts no enotioninges down imanyle blind, nothoda's 420 improved extended version of servlet technology Top page consist of tithe tags is Top tags. West in designing it developments, provides explaining Culter tags, etc. Easy to maintain. critical to add all external Jan files into the path DODESME open tellipse. Cheate a dynamic web propjet with tin

```
Create a table
import java. sql. ;
Public clan CocateTable [
      Public Static Voidmain (String[ Jargs) throws Exception [
            Stoing useunome = boot is a will will
            String passwoods mysql's
             String wal = Jobc: mysel: Mocalhost: 3306/lab;
            class for Name ( Commy sql. jd bc. Doiver );
             Connection con . Downtarger get Connection (ust, cuspiname, passwood);
            System.out.pointln ("Connection is coeated");
             String 591 " Create table Students + " (sid Varchan (20))," +
             " Sname Vourchan(20),"+" Saddo Vanchan(20)))";
             Statement st-con. (Seate Statement ();
             St. execute Update (59 U);
              System.out.pointln(" Student Table is created");
                                                    م- المعدلة
              st close();
             Con closel);
                                             Challest med Los
  Output
  > create database lab;
    database coented
                                           200-106
  > Use (ab;
                                                    Sinkley .
    dutabase changed
                                           Dowylan
  > Show tables:
                                          PART County State
                                                             lysbed-
     Student 5;
```

```
Insert the Values
impost java.sql. ";
Public clays InsortData [
     Public Static Voidmain (String[] args) throws Exception {
                                             chira in ships
         String uscuname "boot";
                                           My store graph
         Stoing pauword - mysql;
         String usl = jdbc: mysql: 11/local host 13306/lab;
         Class. for Name (Com. mysq.) jdbcDriver );
         Connection Con = Doivertainagoriget Connection (ust), username, principal
         System.out. paintln ("Connection is Coconted")
        Statement st-Con-create Statement();
       String sal : insert into Students, Values (1001: 'Afay", 'Hyd);
        St. execute Update (Suls
        String sql= insert into Students values (1002! Vijoy , Abmos);
        St. execute Update(sel);
        Stoing sql= "Insert into students Values (1003', Within , Banglose );
        St. execute Update (Sp.);
       Systemious pointle ("Student those occords are insented.");
                   of Model Intell Jet oping m
       Con-closeU;
                                           18001 -----
Output
School * from Students;
                                             del weighted to
```

| 1001 | Ajay | Hyd |
|------|--------|----------|
| 1002 | Vijay | Asmos |
| 1003 | Within | Banglase |

Student three occords are inserted...

```
UPdate Data
  import java-sql. 4;
   Public class UpdateData {
           Public static void main (Stoing [ ] asgs) throws Exception ?
               String username root;
               String Passwood = mysel;
               String wat = jdbc:mysql://localhost: 3306/lab;
               Class for Name ( Com mysel jobc Doiver y;
             Connection con - Driver Manager get Connection (ust, voername,
               Systemout pointln ("Connection is coentra");
               Statement St = Con-coeate Statement();
               String 591 = update Student Set Sadd's: Hyderabad where
               St execute Update (59);
8);
               System.out.pointln ("student one second is updated.");
               St. close ();
13
              Con-closel);
     Output:
       Select + from students;
           1001
                       Hyderabad
                 Vijay Armoor
                                      poportion popily
                 Nithin Banglose
                 one decord is updated.
        Student
```

```
DeleteData
                                              * 1/2-DUC 1
 impost Java sal. + 1
                                      class UpporteDates 5
Public class Delete Data {
     Public Static Void main (String [ Jargs) throws Exception {
           String Username " boot";
           String password = mysql;
           String und = Jobc: mysql://localhost 13306/lab;
           Class. for Name ("Com. mysel-jdbc Driver);
          Connection con: Driver Hanger, get Connection (ust, Username,
    cappoints and
                                     Password):
          System out pointln ("Connection is coeated");
          Statement st = Con-Cocate Statement();
  String sql= delete from student where sid=1003";
         St. execute Update (squ);
        System out pointly ("student one occood is deleted - ");
         St-close();
                                           Distabilia
         Con-close();
                                     Chekuli miti + t
Output
  Select * from Students;
                                   bodosłost
     1001 Ajay Hyderabad
             vijay Atmoor
                                   Stolpace Billion
      1002
   Student one second is deleted and a second
```

```
ScleutData
impost java sql. +;
Public class SchoolData S
           Public Static Voidmain (String [ Jazgs) throws Exception &
                   Stoling username = ooot;
                   Stoing Passwood = "my sql";
                   Stoing wal = "Jobc: mysal! //localhost: 3306/lab"
                   class.fox Name ("Com. mysel-jdbc. Driver")
                   Connection Con = Driver Hanager get Connection (ust, uscaname
                                                Passwood);
                   System. out. paintln ("connection is coeated"):
                   Statement St = Con. Cocate Statement();
                   Result Set 85 = St. execute Query ("select "from students");
                   System.out. println ("All the Employee Details In");
                   while (85-next()) {
                               System.out.pointln ("Student Io: "+05.get Stoing(1))
                              System out pointin ("Stedent Name: "+85 get String
                             System out pointln ("Student Address:" +85 gutstoing
                  St-close();
                Con.ctescU;
       Output
        Au the Employee Details
        Student 20: 1001
        Student Name: Ajay
        Student Address: Hydenabad
         Student ID: 1002
        Student Name: Vijay
        Student Address: Armour
```

```
Http Session Index html
< body >
(h1) Login Application using Httpsession</h1>
 <a heef = HttpsessionLogin.html > Login </a>
 <a hoef; Httpsession LogoutServiet > Logout</a>
  La hoef; "Hitpsession ProfileSeculet"> Profilectos
 4body>
  4 html
  HttpsewionLink.html
                                    market T states believe
  Chead
  <body >
  La hoef = Httpsessionlogin-html 'sloginclas
   <a href: "Hypsession Logout Sexulet" > Logout </a>
   La horef = "HttpSession poofileServlet" > poofile</a>
   </body>
   </html>
                          recepted I solven the beautiful to be beautiful
   HttpSession LogIn-html
   <html>
   cbody>
   Cform action = ###plagin "Httpsersion Login Servict" method= get 's
    name: L'Input type: text' name: "useuname"> < bo>
    passwood: <input type > passwood ' name > passwood '> < bo>
    Zinput type="Submit" value="login"s
    Clforms His assess hauged alway this senat was
    Despense Hanes Sewiet English To English ybod 1
    4/html>
                        we see Contact Suns Cheek History !!
```

```
HUp Session Login Servict java
impost java in Toexception;
Public class Https://exionloginServlet extends tittps:owlet &
      Protected void do Get (Http Sowlet Request Bequest, HttpServlet
       Response desponse) throws SowletException, IoException [
         desponse. set Content Type ("text/html");
         PrintWriter out = response getWriter();
        Dequest get Request Dispatcher ("HHpseision Link-html"). Include
            (dequest, response);
       String name: request get Parameter ("name");
       Stoing Passwood = request get Parameter ( Passwood );
       if ( Pausword . equals ( 'admin 123 ')) {
           out pointh ( welcome +, +name);
           Https:// session = bequest.getsession();
           Session. sel-Attaibute ("name"; name);
      Else {
          out pointln ("soosy, username or passioned eross!");
          bequest.get Request Dispatcher ("Https:essionLogin: html"). include
                                   (request, response);
```

impost javais Do Exception;

public class Hitroession Logout Servitet extends Hitroenvilet {

Protected Void document (Hitroexvilet Request Dequest, Hitroenvilet

Response Desponse) throws Servitet Exception, Do Exception {

Desponse. Set Content Type (text/html*);

Point Writer out = Desponse. get Writeric);

Dequest. get Request Dispatch on ("Hitpscarron Link html"). include

(Dequest Desponse)

HttpSession session = request. get session ();

Session.invalidate();

out.print("you are fuccessfully logged out");

y

```
HHIP Session Profile Servlet java
import java. 10. IoException;
Public clan Httpsension Profile Sewlet extends Httpservlet {
      protected void doGet (HHPs owlet Request request, HHpscrulet Response
      besponse) throws Servict Exception, IDException {
          desponse setContentType ('text/html');
           PointWalter out = besponse get waiter();
          request-get Request Dispatcher ("Https://ession Link.html"). Include (request,
                                                               desponsel;
         HUP Schoon sension = dequest get sension (false);
         if (session) = null) {
              String name= (string) session-get Attribute (name);
              out. point ('hello "+name +" welcome to your poofile");
                                                                    original
           out.point (" Please log in first ");
           request get Request Dispatcher ("Httpsexborlink, html"). Include
         (bequest, response);
                                               5-00-C
                                      complete de prancipal congret
```

