

- hospital management system
- doctors
 - patients
 - billing
 - user management module

doctor

fullname:

dob:

gender: M ☐ F ☐

qualification:

specialization:

experience:

mobile no:

email address:

street address:

city:

state:

zip:

country:

add

add-doctor.jsp

```
class AddDoctorServlet extends HttpServlet {
    public void service(HttpServletRequest httpReq,
        HttpServletResponse httpResp) {
        String doctorName =
            httpReq.getParameter("doctorName");
        String dob = httpReq.getParameter("dob");
        String gender =
            httpReq.getParameter("gender");
        String qualification =
            httpReq.getParameter("qualification");
        // read all the req parameter values that
        user has submitted from jsp form page.
        DoctorForm form = new DoctorForm();
        form.setDoctorName(doctorName);
        form.setGender(gender);
        form.setDob(sdf.parse(dob));
        form.setQualification(qualification);
        form =
            DoctorRequestWrapper.buildDoctorForm(httpReq);
        // populate all the data into form object
        doctorService.addDoctor(form);
    }
}
```

```
class DoctorService {

    public int addDoctor
        (DoctorForm form){
        // business logic
    }

}
```

```
class DoctorDao {

}

DoctorForm
- String doctorName;
- Date dob;
- String gender;
- String qualification;
- String specialization;
- int experience;
- String mobileNo;
- String emailAddress;
- String streetAddress;
- String city;
- String state;
- int zip;
- String country;
```

- Dont write business and persistence logic inside the Servlet class itself, because:
1. if we write business/persistence logic inside the servlet class, in future if we move to an different presentation-tier technology instead of servlets to an Struts or Spring Mvc Framework, then we need to remove Servlet class and replace with Action/Controller classes of the respective frameworks. When we remove the Servlet, along with presentation-tier logic in receiving the request, we loose business/persistence logic aswell and we need to rewrite the application from scratch.
 2. If we write business/persistence logic inside the servlet we cannot reuse it in other parts of the application.

patient name:

dob:

gender: M: ☐ F: ☐

mobile no:

email address:

emergency contact person:

relation:

emergency contact number:

register

register-patient.jsp

```
class RegisterPatientServlet extends
HttpServlet {
    public void service(httpReq, httpResp) {
        PatientForm form = new PatientForm();
        String patientName =
            httpReq.getParameter("patientName");
        String dob = httpReq.getParameter("dob");
        // all the request parameter values and
        bind to form object
        form.setPatientName(patientName);
        form.setGender(gender);
        patientService.registerPatient(form);
    }
}
```

```
class PatientService {
    int registerPatient(PatientForm
form) {

    }

}
```

```
PatientForm
String patientName;
Date dob;
String gender;
String mobileNo;
String emailAddress;
String emergencyContactPerson;
String relation;
String emergencyContactNo;
```

```
register-patient.jsp
patient name: <input type="text" name="patientName"/>
dob: <input type="text" name="dob"/>
gender: <input type="text" name="gender"/>

patientName: alex
dob: 10/01/1999
gender: Male
mobileNo: 9383984
emailAddress: alex@gmail.com
emergencyContactPerson: bob
emergenecyContactNo: 929384944
relation: Father
```

```
class DoctorRequestWrapper {
    DoctorForm buildDoctorForm(HttpServletRequest req) {
        String doctorName = httpReq.getParameter("doctorName");
        String dob = httpReq.getParameter("dob");
        String gender = httpReq.getParameter("gender");
        String qualification =
            httpReq.getParameter("qualification");
        // read all the req parameter values that user has
        submitted from jsp form page.
        DoctorForm form = new DoctorForm();
        form.setDoctorName(doctorName);
        form.setGender(gender);
        form.setDob(sdf.parse(dob));
        form.setQualification(qualification);
        return form;
    }
}
```