

action="/book-appointment.action"

patient no:

mobile:

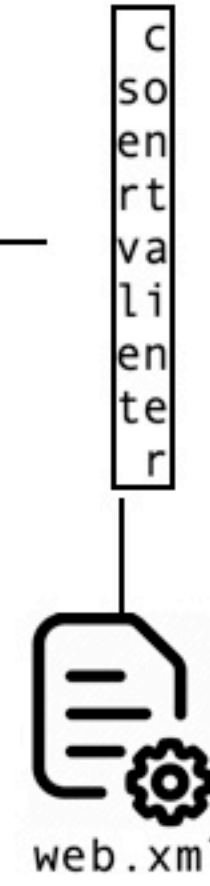
doctor:

appointment date/time:

reason:

remarks/comments:

book-appointment.jsp



action="/newPatient.action"

<c:if test="{errors ne null}">
display errors
</c:if>

patient name:

dob:

gender: ☐ M: ☒ F:

mobile:

email address:

street address:

city:

state:

zip:

country:

new-patient-form.jsp
(source page)

```
class BookAppointmentRequestHandler implements
RequestHandler {

    public WebResponse handleRequest(req, resp,
Object form) {
        // [only respective request processing logic]
        // invoke the service to perform business/
        persistence logic

        WebResponse response = new WebResponse();
        response.setOutcome("appointment-info");
        response.addValue("patientNo", patientNo);
        return response;
    }
}
```

```
class PatientSignUpRequestHandler extends
HttpServlet {
    public void service(req, resp) {

        PatientForm form = RequestHandler.handle(req,
resp, "patientForm", PatientForm.class,
PatientFormValidator.class, "new-patient");

        // invoke the service to perform business and
        persistence operations

        // bind patientId into dataMap
        ViewDispatcher.dispatch(req, resp, "new-
patient-success", map);
    }
}
```

```
interface RequestHandler {
    WebResponse
    handleRequest(HttpServletRequest req,
    HttpServletResponse resp, Object form);
}

class WebResponse {
    String outcome;
    Map<String, Object> responseMap;

    public WebResponse() {
        responseMap = new HashMap();
    }

    public void addValue(String key, Object
value) {
        responseMap.put(key, value);
    }
    public void setOutcome(String outcome) {}
    // getters
}
```

```
@WebServlet(urlPatterns={"*.action"})
class WebFaceServlet extends HttpServlet {
    Map<String, RequestHandlerConfig> requestHandlerConfigMap;

    public void init() {
        // read the web-faces-config.xml and store in requestHandlerConfigMap
    }

    public void service(HttpServletRequest req, HttpServletResponse response) {
        RequestHandlerConfig rhConfig = requestHandlerConfigMap.get(req.getPath());
        Class<?> formClass = Class.forName(rhConfig.getFormClass());
        Object form = GenericWrapper.wrap(req, formClass);

        Validator validator = Class.forName(rhConfig.getValidatorClass()).newInstance();
        validator.validate(form);
        if(validator.hasErrors()) {
            Map dataMap = new HashMap();
            dataMap.put("errors", validator.getErrors());
            dataMap.put(rhConfig.getFormName(), form);
            DispatcherView.dispatch(req, resp, dataMap, rhConfig.getSource());
            return;
        }
        // common pre-processing logic #mandatory

        RequestHandler requestHandler = Class.forName(
            rhConfig.getRequestHandlerClass()).newInstance();
        WebResponse response = requestHandler.handleRequest(req, resp, form);

        // common post-processing logic #mandatory
        DispatcherView.dispatch(req, resp, response.getResponseMap(), response.getOutcome());
    }
}
```

```
web-faces-config.xml
-----
<web-faces>
    <requestHandler path="/book-appointment.action" class="BookAppointmentRequestHandler">
        <source>book-appointment</source>
        <validator class="AppointmentFormValidator"/>
        <form name="appointmentForm" class="AppointmentForm"/>
    </requestHandler>

    <requestHandler path="/newPatient.action" class="PatientSignUpRequestHandler">
        <source>new-patient</source>
        <validator class="PatientFormValidator"/>
        <form name="patientForm" class="PatientForm"/>
    </requestHandler>

    <global>
        <view outcome="book-appointment" page="/book-appointment.jsp"/>
        <view outcome="new-patient" page="/new-patient-form.jsp"/>
        <view outcome="appointment-info" page="/appointment-details.jsp"/>
    </global>
</web-faces>
```

```
class RequestHandlerConfig {
    String path;
    String requestHandlerClass;
    String source;
    String validatorClass;
    String formClass;
    String formName;
    // accessors
}
```