FlyAway
(Project Source Code)

Version History:

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Purpose	Source Code of the application
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- ## Project Link

Repository Name	FlyAway
GitHub Link	https://github.com/Niks4u2/FlyAway
Hosted On	http://flyaway-env-1.eba-4f85ddgn.ap-south-1.elasticbeanstalk.com/

- ## Folder Structure
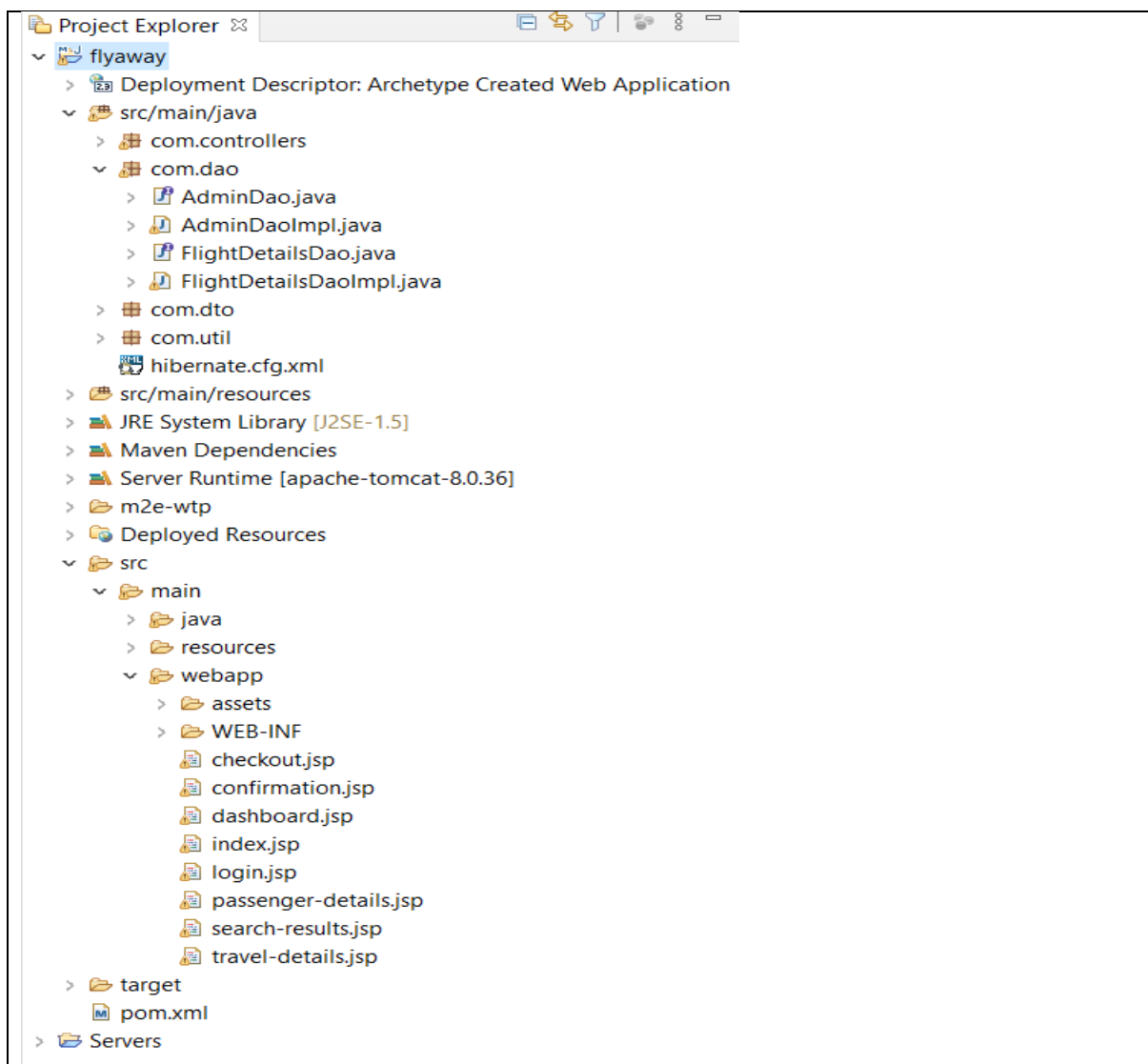
- Controllers

1. AddFlight.java

```java
package com.controllers;

import java.io.IOException;
import java.io.PrintWriter;
import com.dao.FlightDetailsDao;
import com.dao.FlightDetailsDaoImpl;
import com.dto.FlightDetails;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;

public class AddFlight extends HttpServlet {
    private static final long serialVersionUID = 1L;

    public AddFlight() {};

    protected void service(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
                response.setContentType("text/html");
                PrintWriter out = response.getWriter();

                String flightNumber = request.getParameter("flightNumber");
                String airline = request.getParameter("airline");
                String source = request.getParameter("source");
                String destination = request.getParameter("destination");
                String time = request.getParameter("time");
                String price = request.getParameter("price");

                FlightDetails flight = new FlightDetails(flightNumber,
airline, source, destination, time, price);
                FlightDetailsDao dao = new FlightDetailsDaoImpl();
                Integer flightId = dao.addFlight(flight);

                if(flightId != null)
                {

    request.getRequestDispatcher("dashboard.jsp").include(request, response);
                        out.print("<script> window.alert('Flight Details
added successfully!')</script>");
                }
    }
}
```

2. CardDetails.java

```java
package com.controllers;

import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;


public class CardDetails extends HttpServlet {
    private static final long serialVersionUID = 1L;

    public CardDetails() {
        // TODO Auto-generated constructor stub
    }

    protected void service(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
                String cardname = request.getParameter("cardname");
                String cardnum = request.getParameter("cardnum");

                HttpSession session = request.getSession();
                session.setAttribute("cardname", cardname);
                session.setAttribute("cardnum", cardnum);

                response.sendRedirect("confirmation.jsp");
    }

}
```

3. ChangePassword.java

```java
package com.controllers;

import java.io.IOException;
import java.io.PrintWriter;

import com.dao.AdminDao;
import com.dao.AdminDaoImpl;

import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;


public class ChangePassword extends HttpServlet {
	private static final long serialVersionUID = 1L;

    public ChangePassword() {
        // TODO Auto-generated constructor stub
    }

	protected void service(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
			response.setContentType("text/html");
			PrintWriter out = response.getWriter();
			String email = request.getParameter("email");
			String password = request.getParameter("password");

			AdminDao dao = new AdminDaoImpl();
			dao.updateAdminPassword(email, password);

			request.getRequestDispatcher("login.jsp").include(request,
response);
			out.print("<header style='color:green; margin-left:7%'> Password
updated successfully! </header>");
	}

}
```

4. ValidateUser.java

```java
package com.controllers;

import java.io.IOException;
import java.io.PrintWriter;

import com.dao.AdminDao;
import com.dao.AdminDaoImpl;
import com.dto.Admin;

import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;


public class ValidateUser extends HttpServlet {
    private static final long serialVersionUID = 1L;

    public ValidateUser() {
        // TODO Auto-generated constructor stub
    }

    protected void service(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
        response.setContentType("text/html");
        PrintWriter out = response.getWriter();
        String email = request.getParameter("email");
        String password = request.getParameter("password");

        Admin admin = new Admin(email, password);
        AdminDao dao = new AdminDaoImpl();

        boolean isAdminValid = dao.validateAdmin(admin);

        if(isAdminValid)
        {
            HttpSession session = request.getSession();
            session.setAttribute("email", admin.getEmail());
            session.setAttribute("password", admin.getPassword());
            response.sendRedirect("dashboard.jsp");
        } else {

    request.getRequestDispatcher("login.jsp").include(request, response);
            out.print("<header style='color:red; margin-left:7%'>
Invalid email or password! </header>");
        }
    }

}
```

5. RegisterUser.java

```java
package com.controllers;

import java.io.IOException;
import java.io.PrintWriter;

import com.dao.AdminDao;
import com.dao.AdminDaoImpl;
import com.dto.Admin;

import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;


public class RegisterUser extends HttpServlet {
	private static final long serialVersionUID = 1L;


    public RegisterUser() {
        // TODO Auto-generated constructor stub
    }

	protected void service(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
			response.setContentType("text/html");
			PrintWriter out = response.getWriter();
			String email = request.getParameter("email");
			String password = request.getParameter("password");

			Admin admin = new Admin(email, password);
			AdminDao dao = new AdminDaoImpl();

			Integer adminId = dao.addAdmin(admin);

			if(adminId != null)
					response.sendRedirect("login.jsp");
    }
}
```

6. SerachResults.java

```java
package com.controllers;

import java.io.IOException;
import java.util.List;
import com.dao.FlightDetailsDao;
import com.dao.FlightDetailsDaoImpl;
import com.dto.FlightDetails;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;


public class SearchResults extends HttpServlet {
	private static final long serialVersionUID = 1L;

    public SearchResults() {
        // TODO Auto-generated constructor stub
    }

	protected void service(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
			String source = request.getParameter("source");
			String destination = request.getParameter("destination");
			String date = request.getParameter("date");
			String travellers = request.getParameter("travellers");

			HttpSession session = request.getSession();
			session.setAttribute("source", source);
			session.setAttribute("destination", destination);
			session.setAttribute("date", date);
			session.setAttribute("travellers", travellers);

			FlightDetailsDao dao = new FlightDetailsDaoImpl();
			List<FlightDetails> flights = dao.searchFlights(source,
destination);
			session.setAttribute("flights", flights);
			response.sendRedirect("search-results.jsp");
    }
}
```

7. TravellerDetails.java

```java
package com.controllers;

import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;

public class TravellerDetails extends HttpServlet {
    private static final long serialVersionUID = 1L;

    public TravellerDetails() {
        // TODO Auto-generated constructor stub
    }

    protected void service(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {
                String pname = request.getParameter("pname");
                String pemail = request.getParameter("pemail");
                String phone = request.getParameter("phone");

                HttpSession session = request.getSession();
                session.setAttribute("pname", pname);
                session.setAttribute("pemail", pemail);
                session.setAttribute("phone", phone);

                response.sendRedirect("checkout.jsp");
    }

}
```

8. LogoutServlet.java

```java
package com.controllers;

import java.io.IOException;
import javax.servlet.ServletException;
import javax.servlet.http.HttpServlet;
import javax.servlet.http.HttpServletRequest;
import javax.servlet.http.HttpServletResponse;
import javax.servlet.http.HttpSession;


public class LogoutServlet extends HttpServlet {
	private static final long serialVersionUID = 1L;

    public LogoutServlet() {
        // TODO Auto-generated constructor stub
    }

	protected void service(HttpServletRequest request, HttpServletResponse
response) throws ServletException, IOException {

			HttpSession session = request.getSession();
			session.removeAttribute("email");
			session.invalidate();
			response.sendRedirect("login.jsp");
    }
}
```

- Data Access Object

1. AdminDao.java

```java
package com.dao;

import com.dto.Admin;

public interface AdminDao {
    public boolean validateAdmin(Admin admin);
    public Integer addAdmin(Admin admin);
    public void updateAdminPassword(String email, String password);
    public void deleteAdmin(Integer adminId);
    public Admin searchAdminByEmail(String email);
}
```

2. AdminDaoImpl.java

```java
package com.dao;

import javax.persistence.TypedQuery;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;
import org.hibernate.boot.Metadata;
import org.hibernate.boot.MetadataSources;
import org.hibernate.boot.registry.StandardServiceRegistry;
import org.hibernate.boot.registry.StandardServiceRegistryBuilder;

import com.dto.Admin;

public class AdminDaoImpl implements AdminDao{

    private SessionFactory factory;

    public AdminDaoImpl()
    {
        StandardServiceRegistry ssr = new
StandardServiceRegistryBuilder().configure("hibernate.cfg.xml").build();
        Metadata meta = new
MetadataSources(ssr).getMetadataBuilder().build();
        factory = meta.getSessionFactoryBuilder().build();
    }

    public Integer addAdmin(Admin admin) {
        Integer adminId = null;
        Session session = factory.openSession();
        Transaction txn = session.beginTransaction();
        adminId = (Integer) session.save(admin);
        txn.commit();
        session.close();
        return adminId;
    }

    public void updateAdminPassword(String email, String password) {
        Session session = factory.openSession();
        Transaction txn = session.beginTransaction();

        Admin admin = searchAdminByEmail(email);
        admin.setPassword(password);

        session.update(admin);
        txn.commit();
        session.close();
    }

    public void deleteAdmin(Integer adminId) {
        Session session = factory.openSession();
        Transaction txn = session.beginTransaction();
        Admin employee = session.get(Admin.class, adminId);

        session.delete(employee);
```

```java
            txn.commit();
            session.close();
    }

    public Admin searchAdminByEmail(String email) {
            Session session = factory.openSession();

            String hql = "FROM Admin where email = :mail";
            TypedQuery<Admin> query = session.createQuery(hql);
            query.setParameter("mail", email);
            Admin admin = query.getSingleResult();
            session.close();
            return admin;
    }

    public boolean validateAdmin(Admin admin) {
            boolean isAdminValid = false;
            String email = admin.getEmail();
            String password = admin.getPassword();
            Admin admindb = searchAdminByEmail(email);

            if(email.equals(admindb.getEmail()) &&
password.equals(admindb.getPassword()))
                    isAdminValid = true;

            return isAdminValid;
    }

}
```

3. FlightDetailsDao.java

```java
package com.dao;

import java.util.List;

import com.dto.FlightDetails;

public interface FlightDetailsDao {
	public Integer addFlight(FlightDetails flight);
	public List<FlightDetails> searchFlights(String source, String
destination);
}
```

4. FlightDetailsDaoImpl.java

```java
package com.dao;

import java.util.List;

import javax.persistence.TypedQuery;

import org.hibernate.Session;
import org.hibernate.SessionFactory;
import org.hibernate.Transaction;
import org.hibernate.boot.Metadata;
import org.hibernate.boot.MetadataSources;
import org.hibernate.boot.registry.StandardServiceRegistry;
import org.hibernate.boot.registry.StandardServiceRegistryBuilder;

import com.dto.FlightDetails;

public class FlightDetailsDaoImpl implements FlightDetailsDao {

    private SessionFactory factory;
    FlightDetails flight = null;

    public FlightDetailsDaoImpl()
    {
        StandardServiceRegistry ssr = new
StandardServiceRegistryBuilder().configure("hibernate.cfg.xml").build();
        Metadata meta = new
MetadataSources(ssr).getMetadataBuilder().build();
        factory = meta.getSessionFactoryBuilder().build();
    }

    public Integer addFlight(FlightDetails flight) {
        Integer flightId = null;
        Session session = factory.openSession();
        Transaction txn = session.beginTransaction();
        flightId = (Integer) session.save(flight);
        txn.commit();
        session.close();
        return flightId;
    }

    public List<FlightDetails> searchFlights(String source, String
destination) {
        List<FlightDetails> flights = null;
        Session session = factory.openSession();

        String hql = "FROM FlightDetails where source = :src AND
destination = : dest";
        TypedQuery<FlightDetails> query = session.createQuery(hql);
        query.setParameter("src", source);
        query.setParameter("dest", destination);
        flights = query.getResultList();
        session.close();
        return flights;
    }
```

```java
    public List<FlightDetails> getAllFlights() {
        List<FlightDetails> flights = null;
        Session session = factory.openSession();

        String hql = "FROM FlightDetails";
        TypedQuery<FlightDetails> query = session.createQuery(hql);
        flights = query.getResultList();
        session.close();
        return flights;
    }

}
```

- Data Transfer Object

1. FlightDetails.java

```java
package com.dto;

import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.Id;
import javax.persistence.Table;

@Entity
@Table
public class FlightDetails {

    @Id
    @GeneratedValue(strategy = GenerationType.IDENTITY)
    private int flightId;

    private String flightNumber;

    private String airline;

    private String source;

    private String destination;

    private String time;

    private String price;

    public FlightDetails() {};

    public FlightDetails(String flightNumber, String airline, String source,
String destination, String time,
                String price) {
        super();
        this.flightNumber = flightNumber;
        this.airline = airline;
        this.source = source;
        this.destination = destination;
        this.time = time;
        this.price = price;
    }

    public int getFlightId() {
        return flightId;
    }
    public void setFlightId(int flightId) {
        this.flightId = flightId;
    }
    public String getFlightNumber() {
        return flightNumber;
    }
```

```java
        public void setFlightNumber(String flightNumber) {
                this.flightNumber = flightNumber;
        }
        public String getAirline() {
                return airline;
        }
        public void setAirline(String airline) {
                this.airline = airline;
        }
        public String getSource() {
                return source;
        }
        public void setSource(String source) {
                this.source = source;
        }
        public String getDestination() {
                return destination;
        }
        public void setDestination(String destination) {
                this.destination = destination;
        }
        public String getTime() {
                return time;
        }
        public void setTime(String time) {
                this.time = time;
        }
        public String getPrice() {
                return price;
        }
        public void setPrice(String price) {
                this.price = price;
        }
}
```

2. Admin.java

```java
package com.dto;

import javax.persistence.Entity;
import javax.persistence.GeneratedValue;
import javax.persistence.GenerationType;
import javax.persistence.Id;
import javax.persistence.Table;

@Entity
@Table
public class Admin
{
	@Id
	@GeneratedValue(strategy = GenerationType.IDENTITY)
	private int adminId;

	private String email;
	private String password;

	public Admin() {};

	public Admin(String email, String password) {
		super();
		this.email = email;
		this.password = password;
	}

	public int getAdminId() {
		return adminId;
	}

	public void setAdminId(int adminId) {
		this.adminId = adminId;
	}

	public String getEmail() {
		return email;
	}
	public void setEmail(String email) {
		this.email = email;
	}
	public String getPassword() {
		return password;
	}

	public void setPassword(String password) {
		this.password = password;
	}

	@Override
	public String toString() {
		return "Admin [email=" + email + ", password=" + password + "]";
	}
}
```

- Utility

1. HibernateUtil.java

```java
package com.util;

import org.hibernate.SessionFactory;
import org.hibernate.boot.Metadata;
import org.hibernate.boot.MetadataSources;
import org.hibernate.boot.registry.StandardServiceRegistry;
import org.hibernate.boot.registry.StandardServiceRegistryBuilder;

public class HibernateUtil {
    private static StandardServiceRegistry registry;
    private static SessionFactory sessionFactory;

    public static SessionFactory getSessionFactory() {
        if (sessionFactory == null) {
            try {
                // Create registry
                registry = new
StandardServiceRegistryBuilder().configure("hibernate.cfg.xml").build();

                // Create MetadataSources
                MetadataSources sources = new MetadataSources(registry);

                // Create Metadata
                Metadata metadata = sources.getMetadataBuilder().build();

                // Create SessionFactory
                sessionFactory = metadata.getSessionFactoryBuilder().build();

            } catch (Exception e) {
                e.printStackTrace();
                if (registry != null) {
                    StandardServiceRegistryBuilder.destroy(registry);
                }
            }
        }
        return sessionFactory;
    }

    public static void shutdown() {
        if (registry != null) {
            StandardServiceRegistryBuilder.destroy(registry);
        }
    }
}
```