Aspose Assignment

1- Firstly, I created Document.xlsx containing sample data of Employees.
2- Secondly, I created Mail-Merge-Template of Increment letter which will be later used for generating Increment letters of all Employees. I opened Microsoft word document and then under the **INSERT** option I used to select **Quick parts** option to select the field option and then from fields I selected **Merge Field** for each of attributes given in sample data e.g. Full Name, Email, Address, and Salary.
3- Then afterwards, I created a web app in eclipse, following the option File>New>Maven Project>Next>maven-archetype-webapp.
4- Using JSP and Html Tags I designed the **index.jsp** page as specified in assignment.
5- Then I added the FileUploadServlet.java file.
6- **FileUploadServlet** supports two main functionalities
   - Uploading the Excel file
   - Generating Increment Letters of Employees specified by Excel File.
7- **Generating Increment Letters :**

   This task uses two main APIs of Aspose namely Aspose.Cells and Aspose.Words.

   For using both APIs, I have added maven dependencies of both APIs to pom.xml file.

   - **Aspose.Cells :**
     Aspose.cells is used to read the the excel file and load data to ArrayList<Employee> (temporary data structure).

     Maven Dependency:
     <dependency>
        <groupId>com.aspose</groupId>
        <artifactId>aspose-cells</artifactId>
        <version>9.0.0</version>
     </dependency>
   - **Aspose.Words :**
     Aspose.words is used to generate Increment letters of Employee specified by the excel file.
     Maven Dependency:
     <dependency>
        <groupId>com.aspose</groupId>
        <artifactId>aspose-words</artifactId>
        <version>16.8.0</version>
     </dependency>
8- **Index.jsp** calls **FileUploadServlet.java** which performs reading of excel file and generate Increment letters of employees and then shift control to **response.jsp** which displays the list of employees to which you can send Increment Letters.

9- Then I added another servlet named **SendEmailLetters.java,** which makes use of **Aspose.Email** API to send Increment letter to list of employees.

- **Aspose.Email:**
  This API is used to send Email with attachment of increment letter to list of employees.
  Maven Dependency:
  <dependency>
     <groupId>com.aspose</groupId>
     <artifactId>aspose-email</artifactId>
     <version>6.9.0</version>
  </dependency>

10- How to Run Project :

- Deploy project on any server. I have used jetty server for that purpose.

  As per requirement this time I have used Maven for Project Building and automation. I have used maven plugin for jetty server as well, so that I can run project by simple command "mvn jetty:run".

  Maven Plugin :

  ```
  <plugin>
          <groupId>org.eclipse.jetty</groupId>
          <artifactId>jetty-maven-plugin</artifactId>
          <version>9.3.12.v20160915</version>
  </plugin>
  ```

- Then open browser, and type **localhost:8080/** and press enter.
  This will take you to **index.jsp** Page. And when you press upload button, it will take you to **response.jsp**, uploading the selected Excel File and Generating Increment letters for the specified list of employees and route changes to **localhost:8080/ upload**.

- Now at **response.jsp** when you press **Send Increment Letters** button, it will send the email containing increment letters to list of specified employees and route changes to **localhost:8080/sendEmail,** returning **emailSuccess.jsp** in response which prints **Email Sent Successfully** message on the loaded page.