**Proposal towards completion of MSIT COMP900 :**

**Project title:** **Salary Management System**

**1.Introduction:**

• Payroll is defined as a method of administrating employees’ salaries in organizations. The process consists of calculation of salaries and tax deductions of the employees, administrating the retirement benefits and disbursements of salaries to employees. It can also be called as an accounts activity which undertakes the salary administration of employees in the organization.

• Apart, we have problems with deploying, load balancing, scaling and health monitoring for an application. In this project by using AWS Elastic Beanstalk to defeat the above issues.

• AWS Elastic Beanstalk makes it simple to create new environments for your application. You can create and manage separate environments for development, testing, and production use, and you can deploy any version of your application to any environment.

**2. Objectives:**

• To store up-to-date information of the employees.

• To minimize the manual checking of each daily time record of the employee.

• Run accurate payroll on time.

• Automatically handles the details of capacity provisioning, application health monitoring, testing, load balancing.

• Employees will be able to create online requests for any kind of absences, which will automatically be added to an integrated approval workflow system.

**3. Significance and Implications:**

• The three most common issues faced by payroll specialists, manage timesheets, keep track of personal files, correct taxation of benefits.

• It is well known that for companies with many employees, the correct management of daily presence can become a difficult task for the HR department, especially when dealing with employees working in different locations, all around the city, district or country, working based on a non-standard quota.

• AWS Elastic Beanstalk provides so many benefits like fast and simple to deploy the application, integrate with the environment, developer productivity, complete resource control.

• It also scales the application up and down on applications specific need using easily adjustable Auto Scaling settings.

**4. Learning Outcomes**

• Firstly, I enhanced my business domain knowledge, known new business terminology words apart from these improved skills in developing a web application through the Django framework.

• Secondly, such as security, privacy, administration, and interoperability are resolved through AWS elastic beanstalk.

• How AWS services make infrastructure scalable, reliable and highly available.

• I started out as a .Net developer in the IT industry, this project helped me to gain knowledge on AWS and also while research I gained knowledge on Jenkins, CICD, creating pipelines, etc.

• Apart from this, enhanced my skills in UI, integrations, etc.

**5. Approach or Methodology**

• payroll processing typically includes gathering employee time information for a selected time period, managing benefits & deductions, and distributing employee pay for that time period.

• All integration, monitoring tools are provided by AWS, but datasets are mainly manually created because I didn’t find any information about employees and their personal information.

• All the HRA, DEDUCTIONS, TAX PAYABLE AMOUNT calculations fields and integrating with AWS Elastic Beanstalk are difficult situations handled successfully so far.

**6. Location**

• There is no principal location for this project, any small-scale industry can use this project for payroll generation of their employees.

**7. Preparation and Experience**

* For this project mainly prepared on how to create elastic beanstalk instances, integrating and deploying with AWS, gathering all requirements, design the project.
* The minimum qualification to undertake this project is skills Python, Django framework, AWS elastic beanstalk, HTML, UI.
* Project Advisor – prof Tim Chadwick,
* Project committee members:

1. Prof. Tim Chadwick, Computing Technology
2. Prof. Richard J Greene, Computing Technology
3. Prof. Karen Jin, Computing Technology

**8. Timetable**

* Week 1: Preparation.
* Week 2: Requirement analysis.
* Week 3: Design.
* Week 4: creation of models.
* Week 5: implementation and creating datasets.
* Week 6: Creating views and UI.
* Week 7: integrating and implementation.
* Week 8: implementation.
* Week9 to 14: implementation and deployment to AWS, Testing.