

Highways Department Service Register Book Conservation For E-Government

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Abstract- In this paper it describes about the maintenance of highways department service register book and further facilities. The Service Register book can maintain the employee basic pay, pay commission increment, GBF, SBF, Gratuity, loan details and life insurance details to access higher authority. In this proposed project online web port is a cloud based web Application for the Highway Department to maintain the employee service register book. The employee Known as the current status and request status via the cloud based web application. The E-Government support the online management to the employee service register. The Application can support the higher authority to process the employee Request verification and validation process easily and quick time process. The Government privilege, employee request and Loan process can take less time to approve for chief engineer. Authority must have approved document file to update the online service register book at the consolidate information. The Application have the unique login to update, approved, view and request authorities. The Application can also maintain the employee request needed documents and processing status via the cloud. AWS Lambda is a compute service that lets you run code without provisioning or managing servers. AWS Lambda runs your code on a high-availability compute infrastructure and performs all of the administration of the compute resources, including server and operating system maintenance, capacity provisioning and automatic scaling, code monitoring and logging.

Keywords- Cloud based web Application, Cloud Security(AWS Lambda), Service register book, E-Government, Government privilege, Consolidate information

I. INTRODUCTION

Government employee. Head of the Office is responsible to open service book in duplicate immediately after the joining of an employee. The Employee details can stored in the high secure cloud Dynamo Database. Every step of an employee's service life must be recorded in the service book. Each entry is also to be attested by the head of the office. As per direction of the head of the office the employee shall submit the service book every year for verification. After

necessary entry the same will be returned to the employee. The calculation process and consolidate process to maintain the Web application to interest convent.

AWS Lambda is a compute service that lets you run code without provisioning or managing servers. AWS Lambda executes your code only when needed and scales automatically, from a few requests per day to thousands per second.

AWS Lambda runs your code on a high-availability compute infrastructure and performs all of the administration of the compute resources, including server and operating system maintenance, capacity provisioning and automatic scaling, code monitoring and logging.

II. LITERATURE SURVEY

1. E-Government: Challenges and Opportunities in Botswana

In this paper presents the user can understanding of the current status of e-government workers. The Service book procedures are simplification of procedures to better office and record management, The Government process to reduction in corruption and improved attitude, behaviour Promote use of ICT in other sectors of the society. Best practice as it converged the IT sector.

2. Security Techniques for Data Protection in Cloud Computing.

Cloud security techniques include SSL (Secure Socket Layer) Encryption, Intrusion Detection System. Google, Amazon, Cisco, IBM range of cloud-based solutions. The unstructured data access are used Authentication with RSA cryptosystem. The current Structure data access are presents the multifactor authentication procedure from AWS.

3. A Survey on Cloud Security Issues and Techniques

Security issues are considered in two views first in the view of service provider who insures that services provided by them should be secure and also manages the customer's identity management. data is encrypted it is in a form that cannot be read without an encryption key. The data is totally useless to the intruder. It is a technique of translation of data into secret code.

4. Serverless Computing with AWS Lambda

Serverless computing, in this context also known as the Function-as-a-Service (FaaS) model, has dramatically risen in popularity since the introduction of the Lambda platform by AWS in 2014. Although not the first cloud services provider to offer such a platform, the scale and scope of the AWS offering meant that, for many, this was when the serverless paradigm hit the big-time.

III. EXISTING METHODOLOGY

The Service Register Book in Note format to manual entry. Each Request and Government privileges can update longest process and more Time. Verifying process to difficulty for Book verification. Each updating make preservation to service book transfer on Working office to Higher authority. The employee can't know to request status .The new authority can't know as request needed documents.

3.1 Issues In Existing Methodology :

- All the data's are stored in manual only .
- Re - correction cannot be proposed .
- Nobody knows about the information of the user.
- We cannot able to find where Process Acknowledgment is going.
- To complete process transmission takes more time .

IV. PROPOSED METHODOLOGY

In this proposed method various process is obtained for processing and maintain the web application and it is discussed below :

(A) AWS Lambda:

In self-managed environments, operator error is the underlying reason for a platform being compromised. At the network level, a mismanaged firewall or overly lax ACL can open up an environment to malicious traffic, and unpatched operating systems have long since been easy routes in for attackers; this is not to mention zero-day or undisclosed vulnerabilities that can be exploited by criminals or agents of

industrial or national espionage. AWS are responsible for the security of the underlying Lambda execution environment and are able to devote significant resources and expertise to this, developers can benefit from the managed security and are free to concentrate on application-level security.

(B) Web Services with API Gateway:

AWS API Gateway, an elegant and scalable mechanism for making Lambda functions available as web services became available. API Gateway in conjunction with Lambda has gone from strength to strength, and this is now a common deployment pattern for lightweight and web-scale services alike.

(C) Batch Data Processing:

Lambda is being used for batch data processing. The cost model of paying only for required compute is compelling; for batch jobs or workloads that run hourly or more frequently, implementation on EC2 would result in 24/7-equivalent costs. For an hourly batch job that requires significant computation, clearly this could be expensive. With the inbuilt ability to schedule the invocation of Lambda jobs, management overhead is further reduced.

(D) Analytics:

Following on from the above, but additionally incorporating streaming data processing, analytics workloads on Lambda are surging in popularity. Being a somewhat recent platform to be employed for analytics.

(E) Event-Driven Processing:

Throughout the AWS platform, events such as the arrival of objects in an S3 bucket or notifications from SNS can be used to trigger Lambda functions to process new data or otherwise react to the event.

(F) AWS Environment Automation:

In the past, often one or more "automation" instances were employed in a typical AWS account to perform tasks such as EC2 instance out-of-hours shut down, EBS volume snapshots and other housekeeping tasks. With the facility to schedule Lambda function invocations now available, this means that maintaining a running instance (that needs to be managed, patched, etc.) is no longer a requirement. Given an appropriate IAM role, Lambda functions can perform all these tasks at a fraction of the cost.

(G) Log Ingest and Analysis:

As described above, logs from Lambda functions are streamed to Cloud Watch, but ingest and post-processing to improve search ability and visibility are recommended. As well as this, logs from other sources often need on-the-fly processing. Lambda can be used as part of this pipeline for log traffic in flight - the ability to scale up instantaneously should the number of loglines/sec dramatically increase can be a lifesaver. During outages or incidents, when the volume of log traffic is often elevated, it's important to ensure the ingest platform is able to deal with the load, and it's also during these times that having a reliable logging platform is most important. Given the temporal nature of the data, and reliability of the platform, Lambda can be a good choice for these use cases.

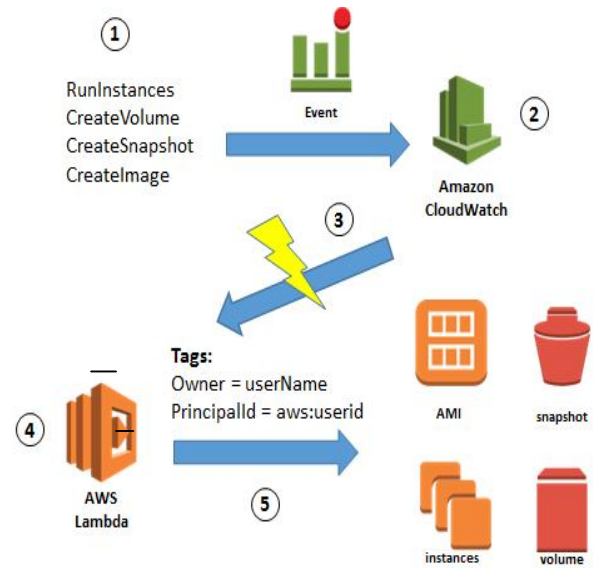


Fig 1 :Cloud security Architecture (LAMBDA)

(H) Artefact Build and Test:

A relatively recent, emerging use case for Lambda is within build systems - tests can be run with a huge degree of parallelisation, without needing to manage and run multiple build slaves.

The Architecture of the “Enhanced Women app” above Description By clicking on the main menu user can navigate and select security,Career,Health,Fitness.We can receive the notification from firebase console using FCM(Firebase Cloud Messaging) to the real devices.

The overall proposed Applications:

- The Service Register Book maintain the online process with cloud computing.
- Each Request and Government privileges can update make easy and shortest time to using this Application .
- Verification and validation process to easy on Application to interest convient calculation are automated.
- The employee known as the request status.
- The new authority know as request needed documents and process.
- The work flow to take the 50% shortest time to the Existing process.

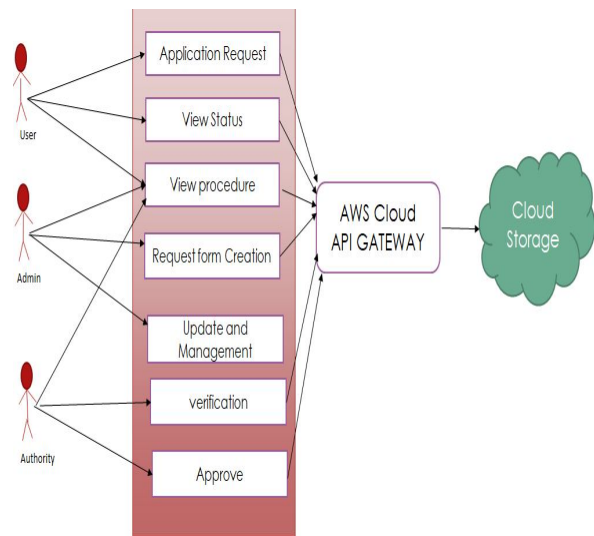


Fig 2 :Use case Diagram

V. ARCHITECTURE

VI. SYSTEM IMPLEMENTATION

In this proposed method , online web Application is created where the information about the user and customer is stored in AWS cloud service . Due to this we can avoid manual process (ie) Service registration book, Attendance book, all loan process. If the user didn't have the login Id , the user can give request to the admin for creating the Id. For security purpose we are going for AWS Lamba. The main

advantage for using AWS Lambda is we cannot able to create duplicate user id and the used Id cannot able accessed in some other locations.

VII, RESULT

(A) Cloud Instance :

At first cloud instance are created for data security purpose so that we can able to access the cloud.

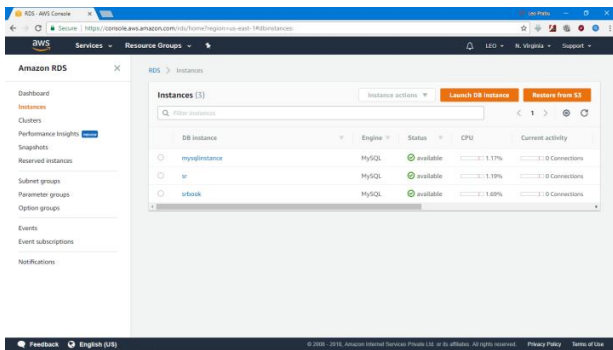


Fig3. cloud Instance

(B) AWS Lambda :

The Instance can Access via the AWS LAMBDA Security .

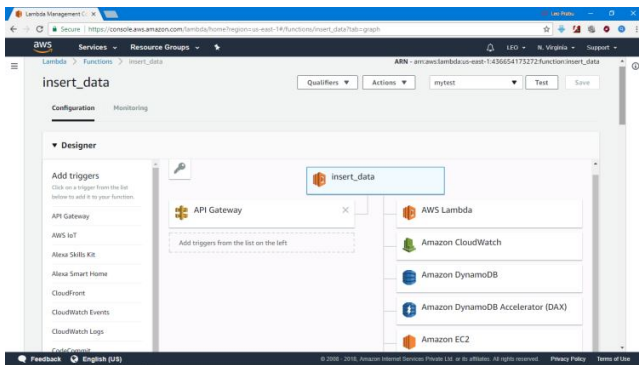


Fig 4 AWS LAMBDA

(C) Home Page ;

In this Fig 5 tells about the home page where the customer and user can see the evens, log in , status, Details and contact details.



Fig 5 Home Page

(D) Service Register Book :

A new user can register their details through Service Register Book.



Fig 6 Service Register Book

(E) Loan Register :

In this Fig 7 ,it tells about the loan register application. where the customer can register or apply their loan .

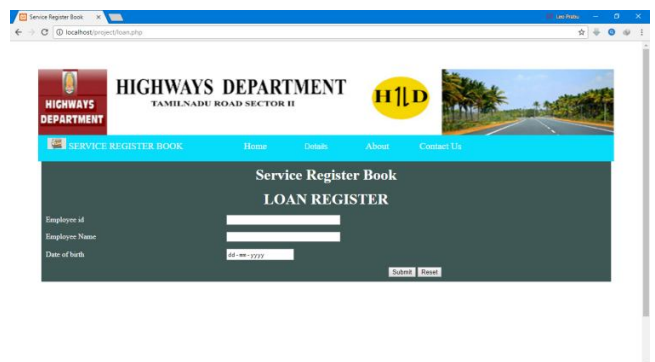


Fig 7 Loan Register

(F) Register Request :

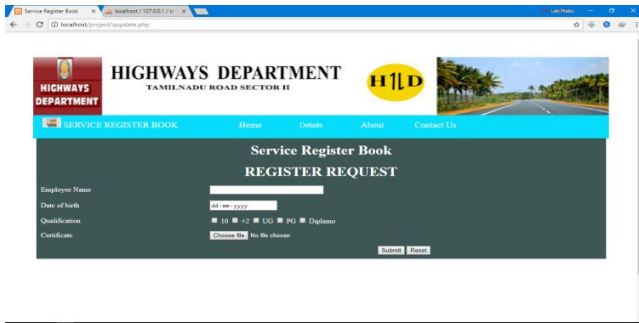


Fig 8 Register Request

(G) Data Stored View:

In this below Fig 10 the console stored data is viewed through this portal.

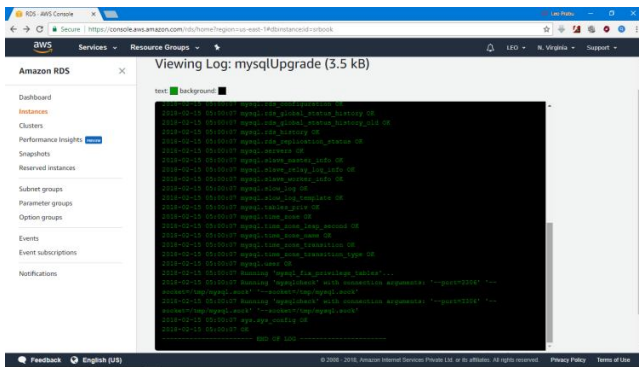


Fig 9 Data Stored View

(H) Message Alert :

The Message Alert is send to the customer through this page

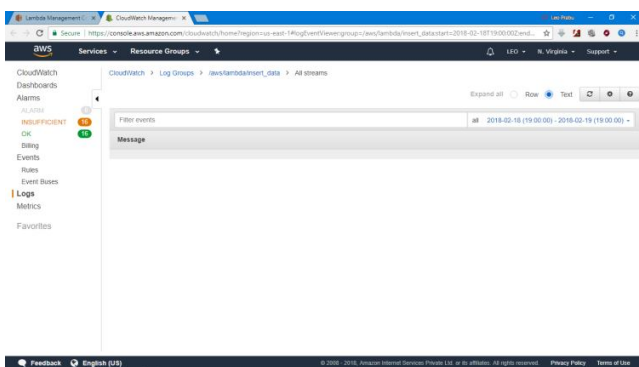


Fig 10 Message Alert

VII. CONCLUSION

“HIGHWAYS DEPARTMENT SERVICE REGISTER BOOK CONSERVATION FOR E-

GOVERNMENT” is a very useful website that helps the user to get more information about the Service book management. Easy way to send request about loans and updating to the admin. And also get frequent notifications about request to the user through cloud AWS (Amazon Web Services)

VIII. ACKNOWLEDGEMENTS

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