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Capturing the Photo of the Customer and Its Applications

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Abstract- The author has implemented capturing the photo of the customer using angular web camera feature. We have worked in Extenda Project to provide simple and trusting lending solutions for micro, small and medium Enterprises(MSMEs) that lack collateral, helping them start or expand their businesses [1]. We have Personal details page, Employment details page, Income and Expense page, Additional details, Loan summary and Documents upload page.

Keywords- progressive web apps, Firebase, micro services, web camera, document upload.

INTRODUCTION

We have worked for micro services based architecture which has different modules such as set up module, administrative module, application module, notification module, origination module, gateway and registry module. We have used Spring Cloud Feign Client and Eureka Server. We have established connection between setup module and origination module by Feign Client. We have implemented webcamera feature by using ngx-webcam. We have used Firebase for deployment. We have used ngx-pwa to test the application in mobile.

LITERATURE SURVEY

We have implemented using ngx-webcam available in angular 13+ . We can take snapshot of the customer. We have checked the working of the camera feature. It works in https(secured environment). We have used firebase to check working in both mobile and laptop. Both front camera and back camera was working. We have tested the application using angular pwa feature. We have implemented by giving path to local device**.** The captured image was available in local device.

CAMERA IMPLEMENTATION AND ITS FEATURES

In Personal details page, the end user provides his personal information. In camera capture, the user can capture his/her image. In upload image, the user can upload the image in .png,.jpeg format. We can upload image below 2MB size. We have configured in application.properties the image size to be uploaded. We have used Spring boot and Restful webservices for backend. Once the image is uploaded, duplicate image name validation is added. The user was able to capture image and upload the image successfully. We implemented using circuit breaker design pattern. When the services are up, the request will be sent to corresponding services and response will be retrieved. When the services are down, fallback method will be called and response message will be displayed.

RESULTS AND DISCUSSION

We have tried to upload image and the image was uploaded successfully. We have captured the customer image successfully. We have used micro services architecture. We have Origination module which will call document module for uploading image. Both Origination services and Document Services should be up. We have used Spring boot version 3.4.3 and Angular 17.

CONCLUSION

We have implemented the logic using angular for front end and Restful web services for backend. We implemented using microservices. In the customer journey, when user login the landing will be displayed. Customer fills the information and submits to banker. Banker will verify the details and sanction the loan. In case of additional information required, banker can return the request to customer.

FUTURE SCOPE

We can try the implementation using React js for front end and python for backend. We can scan the image for viruses and upload the image.

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AUTHOR’S SHORT PROFILE

Working as a Senior Software Engineer, a full stack developer having 12 years experience. Worked in technologies like Angular, Springboot and micro services.