SUMMER 2019 INTERNSHIP, COPART

SOFTWARE ENGINEER INTERN

COPART

Project 2:

Activity Description

Overview:

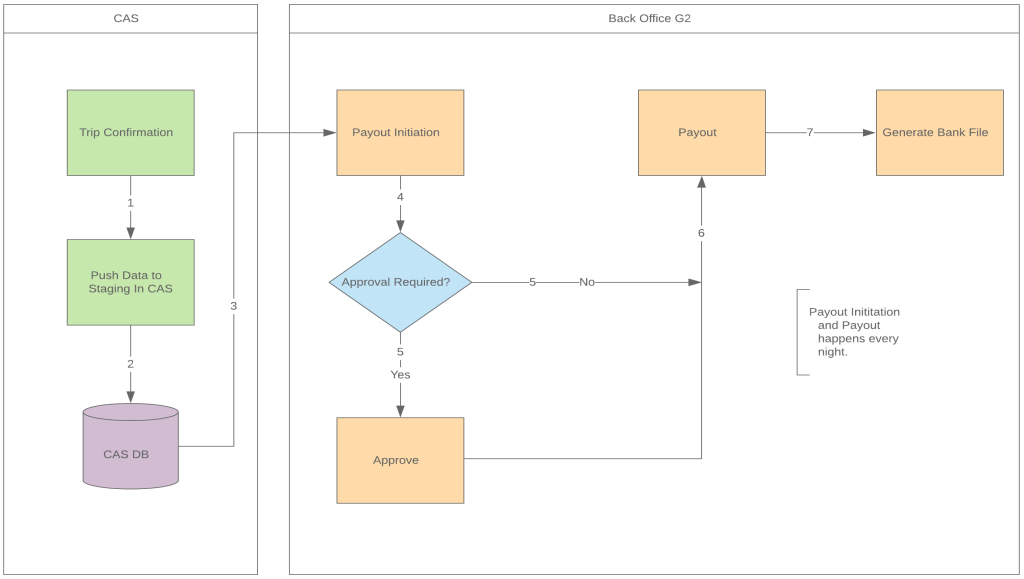
I participated in the creation of a high-level design for an application that is used to make payments through User Interface

Responsibilities:

My responsibility was to understand the business requirement from the client and research about the technologies and techniques that can be used to develop submodules of the project.

Solution:

(1) Once a business confirmation is received from the associated external vendor, a payout record is created and saved in a staging area with NOT_PROCESSED status.
(2) A batch process picks the records which are not yet processed and calls a service to initiate the payout.
(3) The same transactions are the updated in the database as IN_PROGRESS.
(4) The batch job calls the payout service which eventually save the data to payout tables.
(5) Based on the approval configuration for vendors, records either go through the payout approval process or are processed for payout.
(6) Payout batch job picks the records which needs to be paid out and calls the bank file generation service to generate the bank file.
(7) Required tax is calculated through pricing service.
(8) Once the acknowledgement is received, the records are updated as PROCESSED in the database.
(9) For payment reversal, the external system handling the user input sends an event to our system and the payout is reversed if it is in the initiation phase.



Analysis and learning

This project helped me learn and get hands on experience on system designing and an exposure to work with business personnel, designers and architects. The effective collaboration with different teams was also valuable.

The system design knowledge gained from completing course work on Big Data Management an Analytics helped me to have the fundamental knowledge of what are the different components and new technologies involved in handling data while keeping the system Consistent, Available. Partitionable and Scalable. The experience gave me the knowledge of the flow of data within a complete web application starting from the controller layer, through the service layer, to the repository or data access layer. It has also augmented my debugging skills. The experience gained along with the coursework has motivated me to learn more on System designing so that I can take up similar role in my future endeavors.

Further, the experience of working with multiple teams – namely, Quality Assurance, DevOps, and the business was very useful and gave me a knowhow of what could be the different bottlenecks between the development and deployment processes and how could the same be resolved. I would now be able to work independently for most part of a project that is assigned to me. I will also be able to collaborate more effectively with my teammates, other teams and offshore teams.

To improve the performance on the assignment, it would have been immensely helpful if I got to shadow an experienced developer on a project for a few weeks. But understanding the tight deadlines for delivery, it has also given me an experience to work under pressure and how the work can be broken into sub tasks and accomplished in a pipeline. Scaling up the team would also have been useful. In my next project, if I were to manage or lead the same, I would like to have the basic knowledge on multiple projects, so that I can chip in to some other project when my current project heads into a bottleneck or wait time due to dependency on progress made by some other team involved.