EÖTVÖS LORÁND UNIVERSITY

FACULTY OF INFORMATICS

Thesis Registration Form

Student's Data:

Student's Name: Zhang Li

Student's Neptun code: JBPR3N

Course Data:

Student's Major: Computer Science BSc

I have an external supervisor

External Supervisor's Name: *Dobos Laszlo*

Supervisor's Home Institution: *SAP Hungary KFT*

Address of Supervisor's Home Institution: *Záhony utca 7, Budapest 1031*

Supervisor's Position and Degree: *Support Readiness Lead for PLM&MAN and D-Lab project manager, PhD*

Supervisor's e-mail address: *l.dobos@sap.com*

Internal Supervisor's Name: *Zsók Viktória*

Supervisor's Home Institution: ***Department of Programming Languages and Compilers***

Address of Supervisor's Home Institution: ***1117, Budapest, Pázmány Péter sétány 1/C.***

Supervisor's Position and Degree: *Egyetemi adjunktus, PhD*

Thesis Title: Parcel Collection Service Application

Topic of the Thesis:

(Upon consulting with your supervisor, give a 150-300-word-long synopsis os your planned thesis.)

At SAP Labs Hungary, employees have the option to have their personal deliveries sent to the SAP reception. Previously, receptionists had to manually note down and classify dozens of personal deliveries daily on paper and had to manually notify the employees via email of the package pickup. This process has been streamlined with the implementation of a cloud-based application solution, reducing the receptionists' workload, and increasing efficiency.

The earlier solution was, however, designed and developed years ago and was deployed on BTP Neo runtime, which is now deprecated. To ensure the continuity of the service, the application needs to be deployed on a new cloud runtime, Cloud Foundry. Since it did not conform to the company's designated architecture as needed, a new software implementation is necessary.

This thesis aims to develop a brand-new parcel collection service application, inheriting ideas from the existing one, enhancing functionalities while aligning with the company's recommended architecture standards.

The concrete development involves analyzing, designing, and implementing from scratch the new service application following the Cloud Application Programming Model (CAP) as the company's golden standard. In the new solution I will utilize UI5 framework for frontend, Java Spring Boot framework for backend, and HANA Cloud for relational persistence. Additionally, currently there are no administrative functions and managers must contact D-Lab for an employee to register or deregister as a receptionist. I will add new administrative features alongside the development of the service to differentiate roles with ranges of authority over the application.

The outcome will be a novel parcel collection service application that is ready for deployment on Cloud Foundry and provides good and reliable services, to thoroughly replace the older solution.

Budapest, 2023. 05. 10.