INTERNSHIP REPORT

SNEHA VALVAIKAR

1958

IMMO Information Technology Pvt. Ltd. **Goa University**

INTERNSHIP REPORT

Completed by

Sneha Valvaikar | 1958

For the course

MCA Semester VI

Goa Business School, Goa University

At

Immo Information Technology Pvt. Ltd.

Merces, Goa

Under the guidance of

Mr. Prayut Parsekar

(CDO/Associate Director, IMMO Information Technology Pvt. Ltd.)

&

Mr. Ismail Shaikh

(Senior HR Executive, IMMO Information Technology Pvt. Ltd.)

With

Mr. Sudesh Mehta

(CEO, IMMO Information Technology Pvt. Ltd)

Certificate from the Company

IMMO Information Technology

27th May 2022

TO WHOMSOEVER IT MAY CONCERN

This is to certify that **Sneha U Valvaikar**, student of Master of Computer Applications (MCA) of Goa University, Goa, is currently undergoing her semester VI internship with our organization from 17th January 2022, which will end on 30th June 2022.

During her tenure to date, she has met the expectations of her Team leader and was found to be sincere.

This certificate was issued on her request for project report submission at Goa University.

The final internship certificate will be issued on completing her internship tenure.

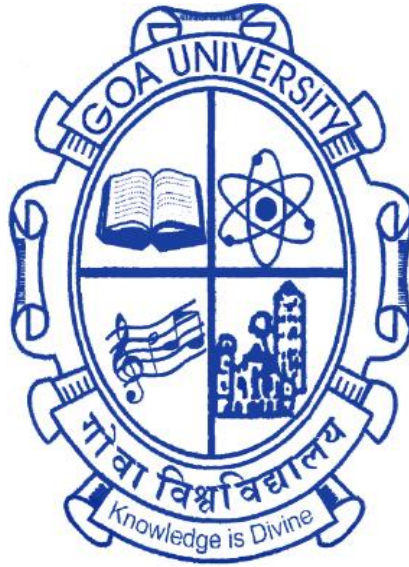**For IMMO Information Technology Private Limited.**

Mr. Nimish Shikerkar
Director/COO

GOA UNIVERSITY

GOA BUSINESS SCHOOL

CERTIFICATE OF EVALUATION

This is to certify that **Ms. Sneha Umesh Valvaikar** has successfully completed her internship at **IMMO Information Technology Pvt. Ltd., Merces, Goa,** in partial fulfillment for the award of the degree in Master of Computer Application.

_____   _____

Examiner 1   Examiner 2

Place: Goa University   _____

Date: 09/06/2022   Dean, Goa Business School

Acknowledgement

Internship in a company is a golden opportunity for learning and self-development, especially with professionals who have tremendous knowledge of all the aspects of the technology.

I am privileged to have done our internship in the IMMO Information Technology Pvt Ltd. I got a great chance for learning, and professional development, and growth. The internship wouldn't be complete without expressing my gratitude to all the people who made it possible.

I would like to thank Mr. Sudesh Mehta(CEO, Immo Information Technology), Mr. Gaurish Abhisheki(COO, Immo Information Technology), and Mr. Nimish Shikerkar(CIO, Immo Information Technology) for allowing me to intern at IMMO. My sincerest gratitude Mr. Prayut Parsekar for giving me all the necessary guidance and support as my team leader. I would also like to thank my team members for always reaching me when I need any support or help.

I would like to extend my gratitude to Mr. Ismail Shaikh(Senior HR Executive, Immo Information Technology) for always helping me out whenever I was in need.

I would also like to thank Mr. Dattaprasad Chodankar, Mr. Amey Kuvelkar, Mr. Sreekanth Unni, Mr. Nitendra Priolkar, Mr. Ashik Parab, and the whole IMMO family for providing us the resources, guidance, knowledge, and advice on how to go about the issues and work assigned to me. With their support, I got a significant amount of exposure and experience of Information Technology and their business network.

I would like to thank Goa Business School, Goa University, for giving me the opportunity to carry out my internship and acquire real-world industrial experience. I thank Mr. Ramdas Karmali (Prof., Goa University) and Mr. Jarret S. A. Fernandes (Asst. Prof., Goa University) and all the faculties of Goa Business School for their constant encouragement and support.

Finally, I would also like to thank my family and friends who were always ready to help me and guide me in all aspects of life.

Table of Contents

Introduction

This report is a short description of my full-time internship at IMMO Information Technology, Merces Goa. I joined as an Intern at IMMO on the 17th of January 2021 and have been here since then. This report contains necessary information about the organization, the assignments and tasks I worked on, and the other training I completed in this internship period.

In the chapters that will follow, I will talk about the company, the work here, the culture, etc. Then, I shall elaborate on the team I was assigned to, a piece of brief information about the assignments, the modules I built, and the tasks I completed. This report highlights my learning experience and my contributions to the organization as an intern. However, considering company data security policies, I won't be able to give details of the work I've contributed to. This will describe the knowledge that I gained by completing the tasks that were assigned to me. I'll also be talking about the tools and technologies that were used followed by my internship timeline. I shall conclude by sharing my experience and how it has helped me to grow, both, on the personal and professional front.

Company Profile

IMMO Information Technology (IIT) Pvt. Ltd is a dynamic IT products development company based in Panjim, Goa. The company was established as a start-up in 2005 and since then it has been providing offshore software development and related services to the parent company IAZI Zurich, one of the leading Real Estate Consulting Companies in Switzerland (www.iazi.ch) that provides advice and statistical analyses to institutional investors (banks, insurance companies, pension funds, etc.). Among our clients we have Credit Suisse, UBS, BKB, CLER, Swiss National Bank, ABN AMRO Bank, Ernst & Young, Basler Versicherungen, Generali, etc.

Company Website: http://www.iazicifi.ch/

Some of the services and products provided by IMMO to leading banks, insurance companies and pension funds from Switzerland.

Dashboard Team

We design dashboards/cockpits using the Qlik Sense Desktop Application and Qlik Sense is a Business Intelligence platform. Business intelligence comprises the strategies and technologies used by enterprises for the data analysis and management of business information.

Companies which are having large amount of data they generally face some kind of challenges which deals with data. Firstly they face challenge to extract large data and to analyze this data. For example to gain some meaningful information out of large data is very difficult. Secondly business intelligence provides data visualizations in the form of pie charts, bar charts, line charts and other extensions.

The main importance of this data visualization is that we can understand quickly any pictorial representation of the data as compared to the some kind of tabular information. We can also analyze data with a historical context this will help the analyst to make some important decision.

There are many BI tools in the market and our team is using Qlik Sense product to develop dashboards. There are many others like Power BI, Tableau, MicroStrategy, ThoughtSpot, SAP and Sisense.

We develop dashboards using App & Mashup Preparation (using ETL). We use Microsoft SQL Server to fetch the data from database and also Microsoft Excel to store csv files data and mostly dashboard configurations are stored in excel files.

Task - Rent App usage dashboard

Problem Statement
- In dashboard all the companies and users should be listed.
- The address selected by the respective users, inputs provided and the appraisal result.
- How many inputs a particular user has entered in the input field and the count of it needs to display.
- Based on the input address it needs to categorize the type of property.

Overview
Rent App usage dashboard displays rent information. The idea is to know which area was clicked more by the companies/users, how many companies uses Rent App.
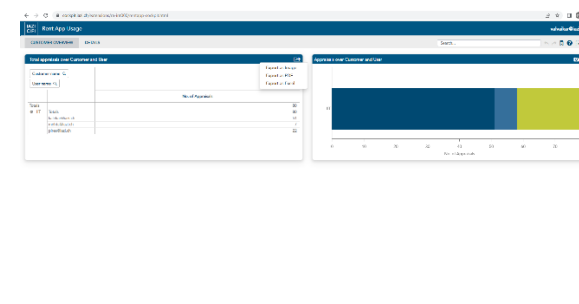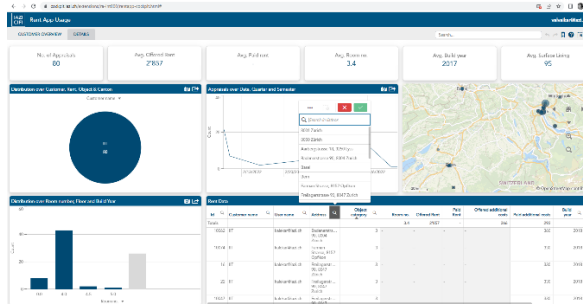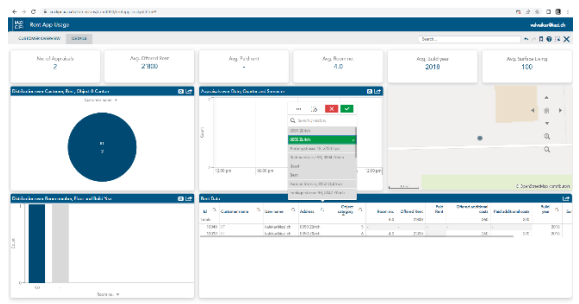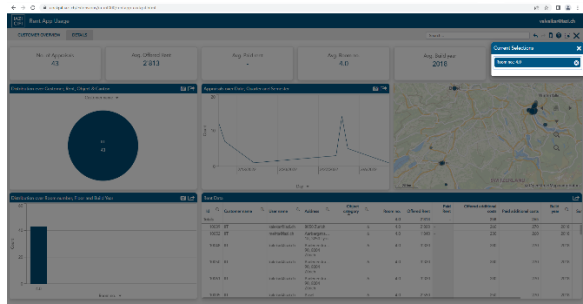
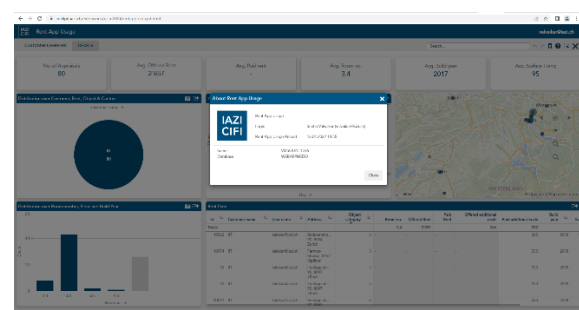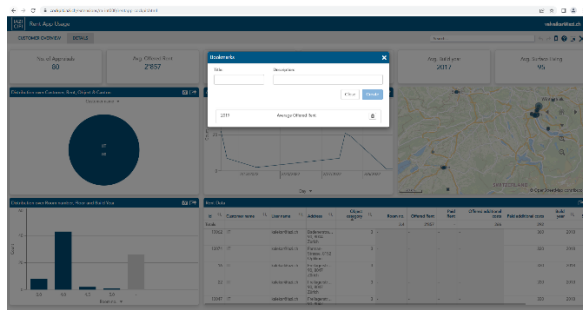## Tools and Technologies used
- Qlik Sense Desktop Application
- Jira
- BitBucket
- Qlik Deployment Framework
- Pedia
- Visual Studio Code
- Notepad++
- Microsoft Excel
- SQL Server 2014 Management Studio
- Remote Desktop Connection
- Teamcity
- Snagit
- Console

My contributions
- To fetch data from database using ODBC connection.
- To load the data in qlik sense desktop application.
- To create "Customer overview" and "Details" sheet in app.
- To create mashup version for "Customer overview" sheet.

Screenshots
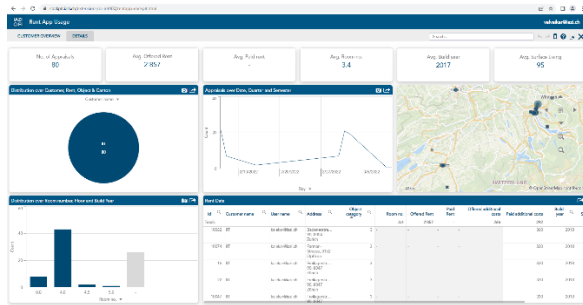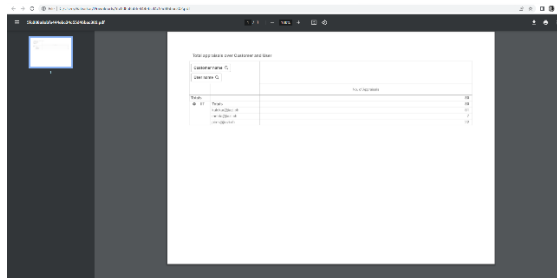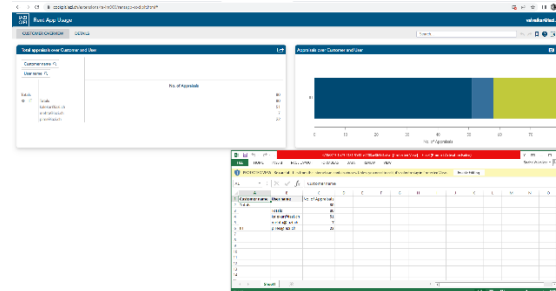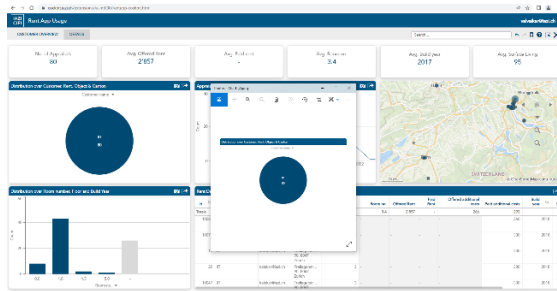
Other Tasks

- **Working on WebAppHedo**
  To get three stars near appraisal button by entering input values and clicking on appraisal button.
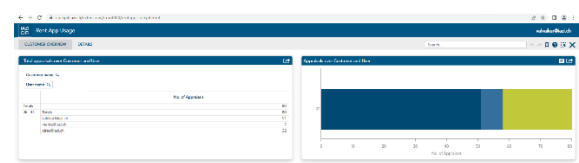
- **Testing PolitMonitor Dashboard**

  For UI related issues and document issues in pedia.

  Tools and Technologies used
  - Pedia
  - Snagit

- **Multi Tenancy/User Testing**
  Multi tenancy refers to a principle in software architecture where a single instance of the software runs on a server, serving multiple tenants. A tenant is a group of users sharing the same view on the software they use.

  Taking five users one by one and testing Polit-Monitor dashboard and document issues in pedia.

  Tools and Technologies used
  - Pedia
  - snagit

- **Multi Tenancy with filters on PolitMonitor**
  Taking five users one by one and testing Polit-Monitor dashboard with filters and document issues in pedia.

  Tools and Technologies used
  - Pedia
  - Snagit

- **Testing on REPM5**
  Testing on REPM5 modules for UI related issues and working of functionalities, document issues in pedia.

Tools and Technologies used
- o Pedia
- o Snagit
- o Microsoft Excel

- **Checked cockpits for any UI related issues**

  For UI related issues and working of functionalities, document issues in pedia.

  Tools and Technologies used
  - o Pedia
  - o Snagit

- **DASHBOARD-1339 SHA-Create New ImmoCockpit for Stiftung Habitat**

  App and extension folder setup, to reload app on qlik sense desktop application, to add dynamic logo in mashup version, customizing theme on extension

  Tools and Technologies used
  - o Qlik Sense Desktop Application
  - o Jira
  - o BitBucket
  - o Qlik Deployment Framework
  - o Pedia
  - o Visual Studio Code
  - o Notepad++
  - o Microsoft Excel
  - o SQL Server 2014 Management Studio
  - o Snagit
  - o Console

- **Tested ImmoCockpits FON, Generali, PAX clients on PROD**

  For UI related issues and working of functionalities, document issues in pedia.

  Tools and Technologies used
  - o Pedia
  - o Snagit

- **DASHBOARD-1361 Hypo – Create Clone of Demo HypoCockpit for TKB**
  App and extension folder setup, to reload app on qlik sense desktop application, to add dynamic logo in mashup version, customizing theme on extension, data testing

  Tools and Technologies used
  - o Qlik Sense Desktop Application
  - o Jira
  - o BitBucket
  - o Qlik Deployment Framework
  - o Pedia
  - o Visual Studio Code
  - o Notepad++
  - o Microsoft Excel
  - o SQL Server 2014 Management Studio
  - o Snagit
  - o Console

- **DASHBOARD-1373 Maintenance-chart Title has typo**
  To correct line chart title on vacancy property tab
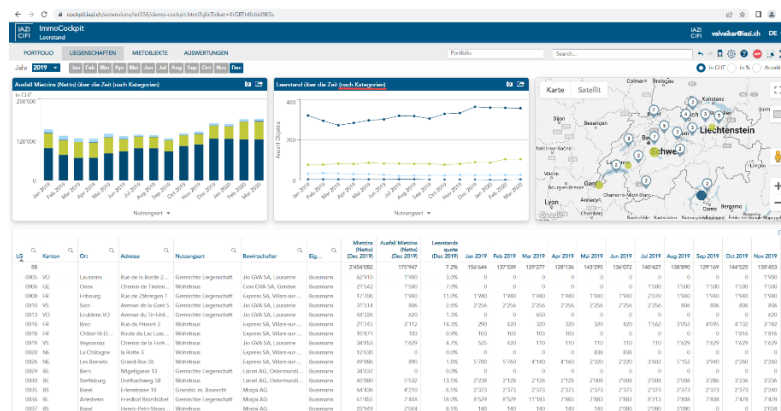
  Tools and Technologies used
  - o Qlik Sense Desktop Application
  - o Jira
  - o BitBucket
  - o Pedia
  - o Microsoft Excel
  - o Snagit
  - o Console

- **DASHBOARD-1320 Improvement – Hide and Show rows in "Portfolio-Income Statement Yearly"**

Expand and collapse functionality using pivot table

Tools and Technologies used
- o Qlik Sense Desktop Application
- o Jira
- o Pedia
- o Visual Studio Code
- o Microsoft Excel
- o Snagit

- **DASHBOARD-1301 DEMO-Merge two DEMO ImmoCockpits into one**
  To add portfolio "Demo Portefeuille" into ImmoCockpit DEMO

Tools and Technologies used
- o Qlik Sense Desktop Application
- o Jira
- o BitBucket
- o Pedia
- o Microsoft Excel
- o SQL Server 2014 Management Studio

- o Snagit
- o Console

- **DASHBOARD-1393 Maintenance-tab "Property-Master Data" Typo IAZI Mikrolage & Makrolage**

  To correct two labels on property-master data tab

  Tools and Technologies used
  - o Qlik Sense Desktop Application
  - o Jira
  - o BitBucket
  - o Pedia
  - o Microsoft Excel
  - o Snagit
  - o Console

- **DASHBOARD-1360 CPV-Error on Tab "Property Vacancy"**

  To show same data on property vacancy tab and rent analysis tab for property id 006, bug analysis, data checking, ceated separate table named BudgetByHistoricMonths for budget related data, for vacancy property chart coordinates expression changed.

  Tools and Technologies used
  - o Qlik Sense Desktop Application
  - o Jira
  - o BitBucket
  - o Pedia
  - o Visual Studio Code
  - o Notepad++
  - o Microsoft Excel
  - o Snagit
  - o Console

- **Testing of MGN cockpit on PROD env**

  For UI related issues and working of functionalities, document issues in pedia.

  Tools and Technologies used
  - Pedia
  - Snagit

- **DASHBOARD-1387 SRG-Setup new ImmoCockpit**

  App and extension folder setup, to reload app on qlik sense desktop application, to add dynamic logo in mashup version, customizing theme on extension, data testing

  Tools and Technologies used
  - Qlik Sense Desktop Application
  - Jira
  - BitBucket
  - Qlik Deployment Framework
  - Pedia
  - Visual Studio Code
  - Notepad++
  - Microsoft Excel
  - SQL Server 2014 Management Studio
  - Snagit
  - Console

- **DASHBOARD-1416 DEMO-Decommission "ImmoCockpit DEMO REPM5"**

  To take backup of app and extension and store to their respective folder in W drive, update the previous extension files with the new one, delete app, extensions and reload tasks of DEMO-REPM5 from QMC.

  Tools and Technologies used
  - Pedia
  - Microsoft Excel
  - Snagit

- **DASHBOARD-1272 Polit-Monitor – Change Header Row**

  To remove "Bookmark" icon from header row and change the position of "Current selection".

Tools and Technologies used
- o Qlik Sense Desktop Application
- o Jira
- o BitBucket
- o Pedia
- o Visual Studio Code
- o Snagit
- o Console

- **DASHBOARD-1273 Polit-Monitor – Display a Row Count**

  To display a row count of displayed items.

  Tools and Technologies used
  - o Qlik Sense Desktop Application
  - o Jira
  - o BitBucket
  - o Pedia
  - o Visual Studio Code
  - o Microsoft Excel
  - o Snagit
  - o Console

- **DASHBOARD-1322 Polit-Monitor – Filter on "Einreichedatum" Missing**

  To add filter icon to "Einreichedatum" field to filter dates.

  Tools and Technologies used
  - o Qlik Sense Desktop Application
  - o Jira
  - o BitBucket
  - o Pedia
  - o Notepad++
  - o Microsoft Excel
  - o Snagit
  - o Console

Certifications and Trainings completed under Internship and Self Study:

Udemy Certifications:

- QlikSense Data Architect Masterclass
  https://www.udemy.com/share/101Xbm3@QH-sFdTs0_hpBWCJUE8cxkCGLFx6RowJU6lmWD2Du3dd_eeD-TXrReQLTjlQKyhF/

- Certificate in Qlik Sense Analytics Development
  https://www.udemy.com/share/101ZES3@lVZZPfWxpBpuJbHJjJY33AymyTfOC2eDBV-vGaIA9dwN67P1D0w9_59QT2U62zDW/

Tools and Technologies Used
Qlik Sense Desktop Application

Qlik Sense Desktop is a Windows application that gives individuals the opportunity to use Qlik Sense and create personalized, interactive data visualizations, reports, and dashboards from multiple data sources with drag-and-drop ease. Its use requires Qlik Sense Enterprise server credentials or a Qlik account.

Jira

Jira is a proprietary issue tracking service developed by Atlassian that allows bug tracking and agile project management. All the issues, stories, tasks, bugs were reported and assigned here, also sprint planning and backlogs are made and kept here. Work logs from and to are to be generated and then to be sent to team leaders at the end of the month for review.

BitBucket

Bitbucket is a web-based version control repository hosting service owned by Atlassian, for source code and development projects that use either Mercurial (since launch) or Git revision control systems. Bitbucket offers both commercial plans and free accounts. It offers free accounts with an unlimited number of private repositories (which can have up to five users in the case of free accounts). Bitbucket integrates with other Atlassian software like Jira, HipChat, Confluence, and Bamboo.

Pedia
Documentation, tutorials and procedure, information, and all the data related to the company are stored here.

Visual Studio Code

Visual Studio Code is a source code editor developed by Microsoft for Windows, Linux, and macOS It includes support for debugging, embedded Git control and GitHub, syntax highlighting, intelligent code completion, snippets, and code refactoring. It is highly customizable, allowing users to change the theme, keyboard shortcuts, preferences, and install extensions that add additional functionality. The source code is free and open-source and released under the permissive MIT License The compiled binaries are freeware and free for private or commercial use.

Notepad ++

Notepad++ is a text and source code editor for use with Microsoft Windows. It supports tabbed editing, which allows working with multiple open files in a single window. The product's name comes from the C postfix increment operator. Notepad++ is distributed as free software.

Microsoft Excel

Microsoft Excel is a spreadsheet developed by Microsoft for Windows, macOS, Android and iOS. It features calculation or computation capabilities, graphing tools, pivot tables, and a macro programming language called Visual Basic for Applications. Excel forms part of the Microsoft Office suite of software.

SQL Server 2014 Management Studio

It is a software application first launched with Microsoft SQL Server 2005 that is used for configuring, managing, and administering all components within Microsoft SQL Server. The tool includes both script editors and graphical tools which work with objects and features of the server.

Remote Desktop Connection

Remote Desktop Connection is one of the components of Microsoft Windows that allows a user to take control of a remote computer or virtual machine over a network connection. RDS is Microsoft's implementation of thin client, where Windows software, and the entire desktop of the computer running RDS, are made accessible to a remote client machine that supports Remote Desktop Protocol (RDP). With RDS, only software user interfaces are transferred to the client system. All input from the client system is transmitted to the server, where software execution takes place. This is in contrast to application streaming systems, like Microsoft App-V, in which computer programs are streamed to the client on-demand and executed on the client machine.

Teamcity
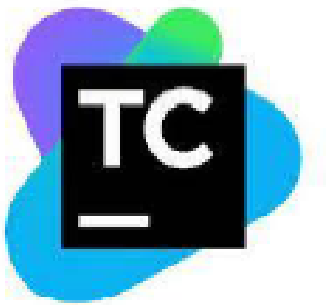
TeamCity is a Java-based build management and continuous integration server from JetBrains. Commits (prevents developers from breaking sources in a version control system by running the build remotely for local changes before commit) Build Grid. Allows running multiple builds and tests under different platforms and environments simultaneously Integrated code coverage, inspections and duplicates search Integration with IDEs: Eclipse, IntelliJ IDEA, Visual Studio Platforms supported: Java, .NET, and Ruby. Once deployed to bitbucket, it then builds->runs >test->prod on teamcity, If failed, then it shows build logs where we can locate the errors

Snagit

Snagit is screen capture and screen recording software for Windows and macOS. It is created and developed by TechSmith and was first launched in 1990. Snagit is available in English, French, German, Japanese, Portuguese and Spanish versions.

Console

A console application is a computer program designed to be used via a text-only computer interface, such as text terminal, the command-line interface of some operating systems or the text-based interface included with most graphical user interface (GUI) operating systems, such as the Windows Console in Microsoft Windows, the Terminal in macOS, and xterm in Unix.

Framework & languages used

Qlik Deployment Framework

HTML & CSS

Javascript

Project timeline/Project diary
January 2022
- ## Week 1:
  - Introduction to Company
  - System configuration
  - Team Service Training: Introduction to WebAppHedo
  - Working on WebAppHedo
  - Team Dashboard Training
  - Testing PolitMonitor Dashboard
  - Started exploring QlikSense Desktop Application
  - Udemy course on Qlik Sense

- ## Week 2:
  - Multi Tenancy/User Testing
  - Udemy course on Qlik Sense
  - Multi Tenancy with filters on PolitMonitor
  - Training on REPM5 demonstration

February 2022
- ## Week 3:
  - Explored QlikSense Desktop Application
  - Practicing reloading ImmoCockpit, Mashup
  - Reloaded the ImmoCockpit App for TEST server
  - Exploring JIRA
  - Testing on REPM5
  - Dashboard KT Session on Mashup
  - Reloaded ImmoCockpit's PAX client

- ## Week 4:
  - Reloaded ImmoCockpit's TELLCO, SUVA, CPV client
  - Training on Data Import, importing multiple table and to create data model, table concatenate, joining table in script, how to resolve synthetic key during data load, resident data load, drop tables and fields, preparing theme-extension, inline tables, mapping tables, crosstable, autogenerate, store, functions, RowNo, peek variables: LET and SET, group by clause
  - Practicing Mashup, Data Import, importing multiple tables, table concatenate, joining table in script, to resolve synthetic key during data load
  - DASHBOARD-1288 Rent App usage dashboard
  - Presentation on Company and Products

- ## Week 5:
  - DASHBOARD-1288 Rent App usage dashboard

- Understanding the charts and use of dimensions and measures in ImmoCockpit's Autoreload app
- Checked cockpits for any UI related issues
- Training on Measures and Dimensions, Reloading of ImmoCockpits

- **Week 6:**
  - DASHBOARD-1288 Rent App usage dashboard
  - Understanding the dimensions of the line chart from ImmoCockpit AutoReload App
  - Training n Data loading using Data Manager, how to commit changes, setting up of an app on the server

March 2020
- **Week 7:**
  - DASHBOARD-1288 Rent App usage dashboard
  - Training on Qlik Deployment Framework
  - Rent App usage dashboard mashup version
  - Presentation on "Deployment Process Overview" by System Team

- **Week 8:**
  - Rent App usage dashboard mashup version
  - Presentation Qlik NPrinting from axed
  - DASHBOARD-1339 SHA-Create New ImmoCockpit for Stiftung Habitat

- **Week 9:**
  - DASHBOARD-1339 SHA-Create New ImmoCockpit for Stiftung Habitat
  - Rent App usage dashboard mashup version
  - IAZI and IIT Security Awareness Training 2021
  - Rent App usage dashboard mashup version improvements

- **Week 10:**
  - DASHBOARD-1288 Rent App usage dashboard
  - Rent App usage dashboard mashup version improvements

April 2022
- **Week 11:**
  - Rent App usage dashboard mashup version improvements
  - Tested ImmoCockpits FON, Generali, PAX clients on PROD
  - Configuration testing of IAZI Tools: LORE, MapsPro – Rent Check
  - Rent App usage dashboard
  - DASHBOARD-1361 Hypo – Create Clone of Demo HypoCockpit for TKB
  - Configuration Testing on PROD and PW setup

- **Week 12:**
  - DASHBOARD-1361 Hypo – Create Clone of Demo HypoCockpit for TKB
  - DASHBOARD-1373 Maintenance-chart Title has typo
  - Completed IAZI & IIT Security Awareness Training 2021
  - DASHBOARD-1320 Improvement – Hide and Show rows in "Portfolio-Income Statement Yearly"
  - Attended IIT Annual Presentation + EMC Meeting

- **Week 13:**
  - DASHBOARD-1320 Improvement – Hide and Show rows in "Portfolio-Income Statement Yearly"
  - DASHBOARD-1301 DEMO-Merge two DEMO ImmoCockpits into one
  - DASHBOARD-1393 Maintenance-tab "Property-Master Data" Typo IAZI Mikrolage & Makrolage
  - Documentation of issues: DASHBOARD-1393, 1301

- **Week 14:**
  - Documentation of issues: DASHBOARD-1301, 1320, 1361, 1373, 1288
  - DASHBOARD-1288 Data modelling using Data manager
  - DASHBOARD-1360 CPV-Error on Tab "Property Vacancy"

- **Week 15:**
  - DASHBOARD-1360 CPV-Error on Tab "Property Vacancy"
  - Testing of MGN cockpit on PROD env
  - DASHBOARD-1387 SRG-Setup new ImmoCockpit

May 2022
- **Week 16:**
  - DASHBOARD-1387 SRG-Setup new ImmoCockpit
  - DASHBOARD-1301 DEMO-Merge two DEMO ImmoCockpits into one
  - DASHBOARD-1416 DEMO-Decommission "ImmoCockpit DEMO REPM5"
  - DASHBOARD-1360 CPV-Error on Tab "Property Vacancy"

- **Week 17:**
  - DASHBOARD-1301 DEMO-Merge two DEMO ImmoCockpits into one
  - DASHBOARD-1360 CPV-Error on Tab "Property Vacancy"
  - DASHBOARD-1387 SRG-Setup new ImmoCockpit
  - Presentation by Ismail Sir

- **Week 18:**
  - DASHBOARD-1360 CPV-Error on Tab "Property Vacancy"
  - Security Snapshots Training by KnowBe4
  - DASHBOARD-1387 SRG-Setup new ImmoCockpit

- **Week 19:**
  - DASHBOARD-1387 SRG-Setup new ImmoCockpit
  - DASHBOARD-1272 Polit-Monitor – Change Header Row
  - DASHBOARD-1273 Polit-Monitor – Display a Row Count

June 2022

- **Week 20:**
  - DASHBOARD-1273 Polit-Monitor – Display a Row Count

  - DASHBOARD-1322 Polit-Monitor – Filter on "Einreichedatum" Missing

My reflections/experiences of internship

My internship at IMMO has been a wonderful and growing experience. Starting from the interviews to date, it helped us in exploring our potentials, and focus on our growth while not letting die the hunger to learn more.

I was fortunate to receive training as part of my internship. As I reflect on all we have learned, I realize what this has been an excellent experience. We gathered much knowledge in the classroom, but a hands-on approach has been invaluable. It has served as a beneficial ending to my formal education. Skills such as multitasking, communicating, learning to deal with diversity, and dealing with deadlines are different when you are working for someone else. It is amazing to see how people from different regions stay as one family and work together.

We had so much to learn about the company itself, as to what kind of projects it deals with, who are the clients, what are the company traditions, etc. To help us understand the company more, and give an idea of what each team in the company does, every first Saturday of the month each team explains their work using presentations. This was often followed by fun quiz sessions, which kept me engaged and made it more interesting.

Overall, I'm glad to be a part of IMMO and looking forward to facing new challenges with the knowledge that I have acquired here.

References

- http://immoinfotech.com/
- https://products.aspose.app/imaging/image-crop/svg
- https://www.w3schools.com/
- https://help.qlik.com/