InBetween

INTERNSHIP REPORT
Raunak Tar
1956

Report of Internship done at
InBetween Software Development PVT. Ltd

Submitted by

Raunak Tar

MCA Semester VI

1956

Under the guidance of

Asmita Mamlekar

Engineering Manager, InBetween Software
Development PVT. Ltd

GOA BUSINESS SCHOOL
Goa University
Taleigao Plateau Goa– 403206
June 2022

InBetween Software Development Pvt. Ltd.
www.inbetween.com
Direct Contact :
niveditha.praveen@inbetween.com
Mob: +91 - 8600043323

May 31, 2022

To Whomsoever It May Concern

This is to certify that Mr. Raunak Tar is undergoing industrial training as a Java intern at InBetween software development private limited since january 10, 2022 to expected date of completion July 8, 2022 under the guidance of Ms. Asmita Mamlekar, engineering manager.

He has developed Java swing UI applications, handled medium level bug fixes using core Java language and handled algorithmic complexities.

For InBetween Software Development Pvt Ltd

Niveditha Praveen
Director

Director Software Development
Niveditha Praveen
+91-8600043323
niveditha.praveen@inbetween.com

Managing Director
Alexander Dressler

alexander.dressler@inbetween.de

Office Address :
311, Shiv Towers,
EDC Patto Plaza, Panjim
Goa 403001, India

GOA BUSINESS SCHOOL

CERTIFICATE OF EVALUATION

This is to certify that Mr. Raunak Tar has been evaluated for the project work titled "Report of Internship done at InBetween Software Development PVT. Ltd" undertaken at InBetween Software Development PVT. Ltd, Goa in partial fulfilment for the award of the degree in Master of Computer Application.

_____   _____

Examiner 1   Examiner 2

Place: _____
Date: Dean, Goa Business School

ACKNOWLEDGEMENT

First and foremost, I'd want to express my gratitude to the Goa Business School at Goa University for providing me with the chance to intern and get real-world industrial experience. Also, a special thanks to Mr. Ramdas Karmali (Prof. and TPO, MCA, Goa Business School, Goa University), Mr. Jarret Stevan Anthony Fernandes (Assistant Prof, MCA, Goa Business School, Goa University) and all the Goa Business School's teaching and non-teaching staff.

I also want to express my gratitude to InBetween Software Development PVT. Ltd for allowing me to participate in this internship and for believing in my ability to work on such projects.

I would like to express my gratitude to Mrs. Rebecca Fernandes (HR) & Mrs. Asmita Mamlekar (Engineering Manager) for giving me this opportunity to work on these projects and for all the guidance, time, patience, support and encouragement provided to me during the internship.

I am also grateful to all the InBetween employees for all the help and encouragement which helped me during my internship.

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DISCLAIMER

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INTRODUCTION

This internship report describes the several tasks/assignments carried out during 6 months full time Internship period by Mr. Raunak Tar which commenced on the 10th January 2022 at InBetween Software Development PVT. Ltd in accordance with curriculum of the VI semester Industrial Training of the MCA program, Goa University, Goa. In the following report I have provided a small description of the company, the technologies studied and tools used during the internship, and also tasks which I have done during the internship. Finally, I have described my experience with the company during the internship period.

Company Profile

InBetween Deutschland GmbH is a global leader in Database Publishing solutions. 30 years InBetween has been synonymous with high performance dynamic and database publishing. The standard software InBetween is able to create catalogs, brochures, datasheets, price lists, and many more types of media in a rule-based, automated, and format-independent manner and in a variety of outputs formats. With InBetween, your publications for marketing, sales as well as your technical documentation can be created more easily, faster, and more efficient throughout the entire company. You are not only saving a lot of time and money but also nerves.

As an owner-managed company, we put great emphasis on a long-term value- and profit-oriented investment and growth strategy. Therefore, strong cooperation with our partners plays a key role in our expansion and for building up an international presence. With our competent marketing-, sales- and support team headquartered in Stuttgart and an extensive partner network on several continents, we are able to offer you all the advantages of

an efficient publication process as well as related services anywhere you want.

Our top-class development team at InBetween Software Development Pvt Ltd in Goa makes sure your requirements and our own ideas regarding new functions will be put into action. Through our software maintenance customers regularly receive enhanced and improved software versions. Because the further development of a software is just as important as what you buy today.

More than 200 companies worldwide across over 100 industries already benefit by using the database-supported cross-media publishing provided by the market leader, InBetween. Our knowledge of the special requirements in the various branches and continuous further development of InBetween made this success possible. Today, InBetween is a mature technological standard solution for all aspects of modern database and Dynamic-Publishing.

InBetween as a Product

The standard software InBetween is able to create catalogs, brochures, datasheets, price lists, and many more types of media in a rule-based, automated, and format-independent manner and in a variety of outputs formats. With InBetween, publications for marketing, sales as well as technical documentation can be created more easily, faster, and more efficient throughout the entire company saving a lot of time and money but also nerves.

The software consists of various UI and Non-UI clients which provide the user with varying degree of control on their generation of documents depending on their needs.
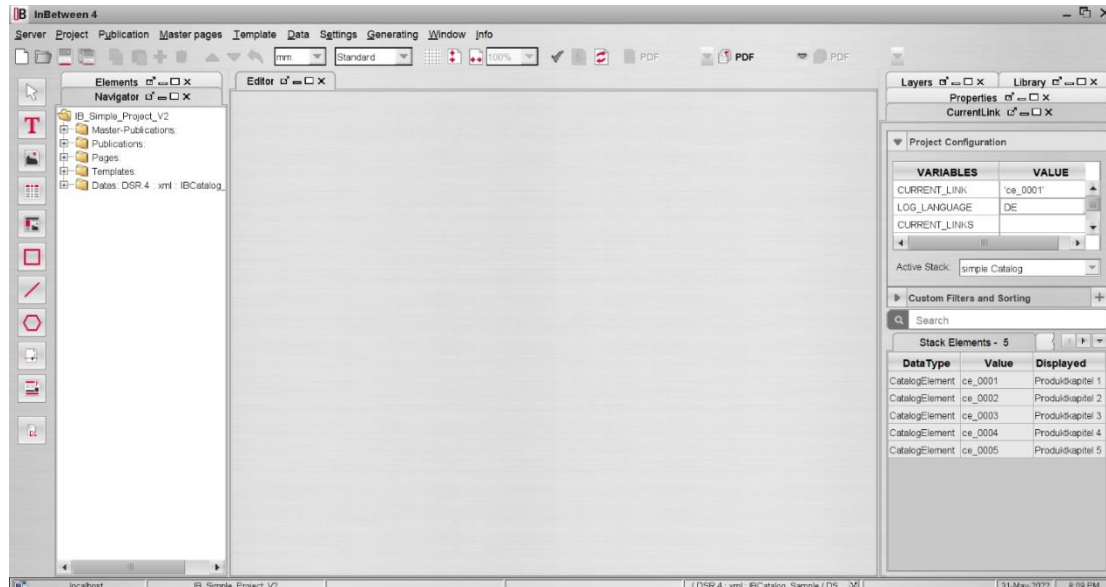
The following are few of the clients: -

- Project Editor
- Publisher
- Publication Wizard
- Batch Client
- Hotfolder

Work At InBetween Software Development PVT. Ltd

The following are the clients I have worked on.

1)Project Editor

The InBetween Project Editor is a UI client. This is a tool for the InBetween project developers. Here all necessary functions are made available for the user to build the project. The user interface of the InBetween Project Editor is completely graphical. The user must not issue orders via a command line to run or write code. Almost all actions can be performed with the mouse and give visual feedback.
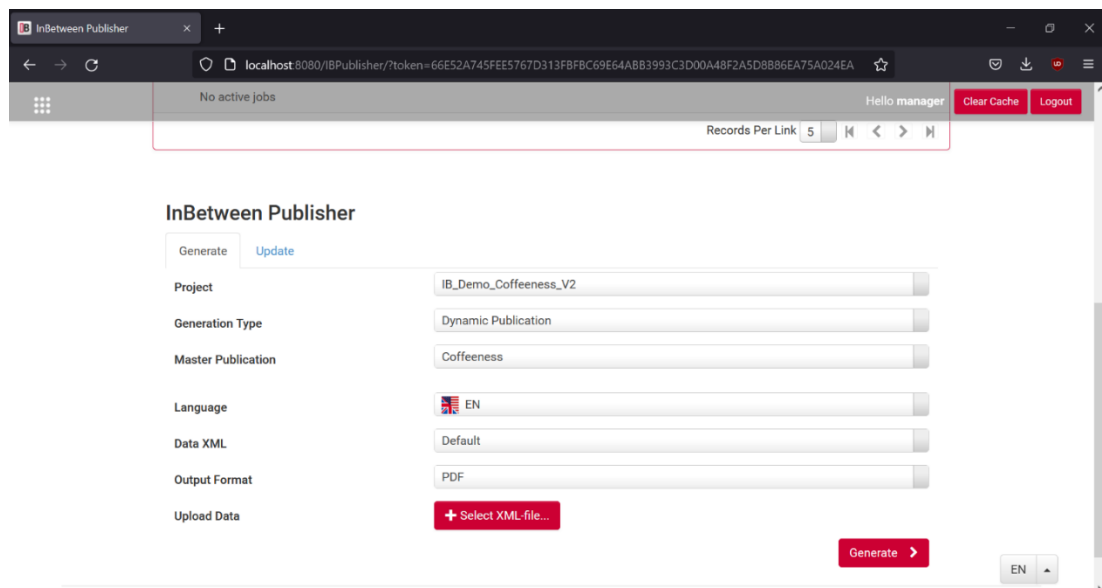
Tools & Technologies used: - Java, Java Swing, HSQLDB, ArangoDB, XML, SAX, JIRA, Tortoise SVN, SonarQube.

2)Hotfolder client

Hotfolder is a non-UI client. For this client there is a config.xml file where all the details regarding the generations of document is specified along with the name of the hotfolder. On running the client, the user can simply drag and drop an XML data file in the folder and the client will generate the documents based on the specifications in the config.xml file.

Tools & Technologies used: - Java, HSQLDB, ArangoDB, XML, SAX, JIRA, Tortoise SVN, SonarQube.

3)Publisher

Publisher is a UI client and also a web client. This client is mainly used to give demo to the customers. It has a very simple UI hence customization of the document is very limited which makes it fast and easy to generate documents.
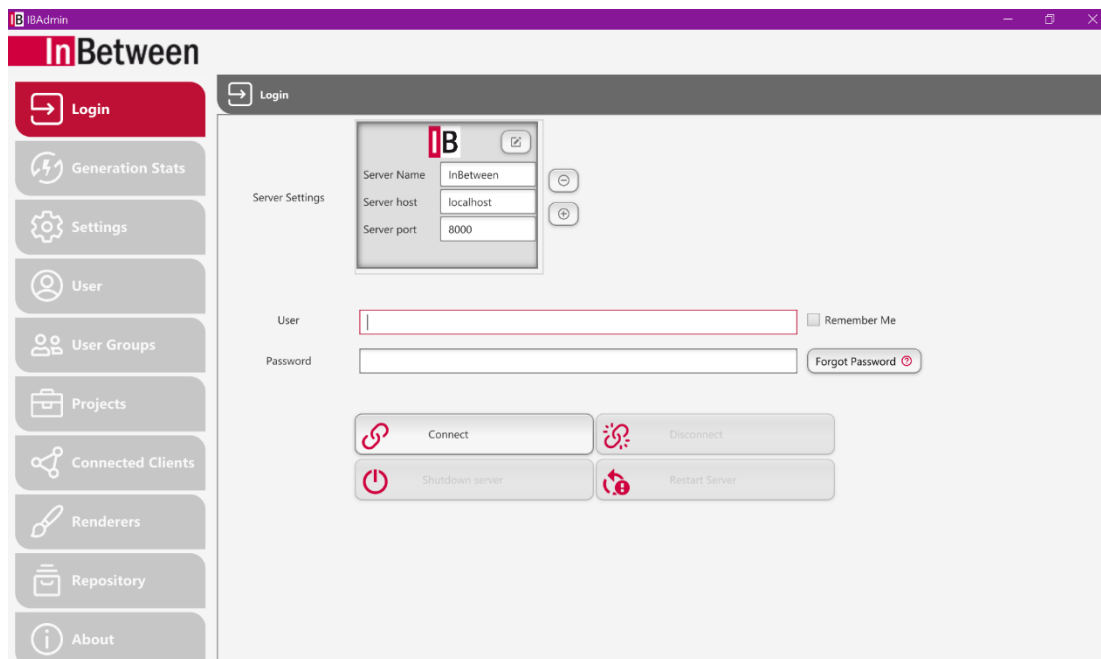
Tools & Technologies used: - HTML, CSS, Javascript, JQuery, Java, HSQLDB, ArangoDB, XML, SAX, JIRA, Tortoise SVN, SonarQube.

4)Batch client

Batch client is a non-UI client. For this client there is a scheduler.xml file where all the jobs are specified. On running the client, it schedules the jobs and generates the documents based on the job details. Jobs can even be scheduled to run on a specific time every day.

Tools & Technologies used: - Java, HSQLDB, ArangoDB, XML, SAX, JIRA, Tortoise SVN, SonarQube.

5) IB Admin

The InBetween Server Administrator is a tool for configuring the InBetween server and is located in the InBetween directory. Users can be created and deleted via the server administrator and user rights can be defined for individual projects. The server administrator can also query the current status of the InBetween server and close the InBetween server. In addition, the status of generations can be viewed and managed.

Tools & Technologies used: - Java, JavaFX, HSQLDB, ArangoDB, XML, JIRA, Tortoise SVN, SonarQube.

My Contributions: -

In all the above clients I have performed tasks such as fixing bugs and introducing new features.

Tools and Technologies Used

Java

Java is a widely used object-oriented programming language and software platform that runs on billions of devices, including notebook computers, mobile devices, gaming consoles, medical devices and many others. The rules and syntax of Java are based on the C and C++ languages. One major advantage of developing software with Java is its portability. Once you have written code for a Java program on a notebook computer, it is very easy to move the code to a mobile device.

Java Swing

Swing is a GUI widget toolkit for Java. It is part of Oracle's Java Foundation Classes – an API for providing a graphical user interface for Java programs. Swing was developed to provide a more sophisticated set of GUI components than the earlier Abstract Window Toolkit.

HTML

The Hypertext Markup Language or HTML is the standard markup language for documents designed to be displayed in a web browser.

CSS

Cascading Style Sheets is a stylesheet language used to describe the presentation of a document written in HTML.

Javascript

JavaScript is the Programming Language for the Web. JavaScript can update and change both HTML and CSS. JavaScript can calculate, manipulate and validate data.

JQuery

jQuery is a JavaScript library designed to simplify HTML DOM tree traversal and manipulation, as well as event handling, CSS animation, and Ajax.

JavaFX

JavaFX is a software platform for creating and delivering desktop applications, as well as rich web applications that can run across a wide variety of devices. JavaFX has support for desktop computers and web browsers on Microsoft Windows, Linux, and macOS, as well as mobile devices running iOS and Android.

HSQLDB (HyperSQL DataBase)

HSQLDB (HyperSQL DataBase) is the leading SQL relational database system written in Java. It offers a small, fast multithreaded and transactional database engine with in-memory and disk-based tables and supports embedded and server modes. It includes a powerful command line SQL tool and simple GUI query tools.

ArangoDB

ArangoDB is a free and open-source native multi-model database system developed by ArangoDB GmbH. The database system supports three data models (key/value, documents, graphs) with one database core and a unified query language AQL (ArangoDB Query Language). The query language is declarative and allows the combination of different data access patterns in a single query. ArangoDB is a NoSQL database system but AQL is similar in many ways to SQL.

JIRA

Jira is a proprietary issue tracking product developed by Atlassian that allows bug tracking and agile project management.

Tortoise SVN

TortoiseSVN is a really easy to use Revision control / version control / source control software for Windows. It is based on Apache™ Subversion (SVN). TortoiseSVN provides a nice and easy user interface for Subversion. It is developed under the GPL. Which means it is completely free for anyone to use, including in a commercial environment, without any restriction. The source code is also freely available, so you can even develop your own version if you wish to.

SonarQube

SonarQube is an open-source platform developed by SonarSource for continuous inspection of code quality to perform automatic reviews with static analysis of code to detect bugs, code smells, and security vulnerabilities on 20+ programming languages.

XML

Extensible Markup Language is a markup language and file format for storing, transmitting, and reconstructing arbitrary data. It defines a set of rules for encoding documents in a format that is both human-readable and machine-readable.

SAX

SAX is an event-driven online algorithm for parsing XML documents, with an API developed by the XML-DEV mailing list. SAX provides a mechanism for reading data from an XML document that is an alternative to that provided by the Document Object Model.

Internship Timeline

JAN 2022

Week 1

- Formal Orientation and on-boarding process.
- Knowledge Transfer sessions on InBetween Software.
- Knowledge Transfer sessions on Web based Clients

Week 2

- Generated files in different formats using InBetween project editor.
- Knowledge transfer sessions on Jira.
- Created first ticket on Jira.
- Knowledge Transfer sessions on SVN.
- Knowledge Transfer sessions on eclipse.

Week 3

- Worked on IB Admin bug ticket (Edited user does not get reflected).
- Worked on Project Editor bug ticket (Project restart should not be needed to reflect newly created Color styles in the Layers color list).

Week 4

- Worked on Project Editor bug ticket (Project restart should not be needed to reflect newly created Color styles in the Layers color list).
- Worked on new Project Editor bug ticket (Add Font Style option is displaying in Canvas, List and Styles panel UI after right click).

FEB 2022

Week 1

- Worked on Publisher bug ticket (Append/Style options are not displayed for HQ-PDF and Int-PDF output format).

Week 2

- Worked on same Publisher bug ticket (Append/Style options are not displayed for HQ-PDF and Int-PDF output format).
- Worked on new feature ticket (uploading & using multiple javascript files for generations) for batch client and hotfolder.

Week 3

- Worked on new feature ticket (uploading & using multiple javascript files) for batch client and hotfolder.
- Worked on backend implementation ticket for the new feature ticket (uploading & using multiple javascript files for generations).

Week 4

- Worked on backend implementation ticket for the new feature ticket (uploading & using multiple javascript files for generations).
- Worked on new feature ticket for uploading and using multiple javascript files for update functionality.

March 2022

Week 1

- Worked on new feature ticket for uploading and using multiple javascript files for update functionality.
- Worked on new feature ticket for creating UI for publisher to upload and use multiple javascript files for generation and update.

Week 2

- Worked on new feature ticket for creating UI for publisher to upload and use multiple javascript files for generation and update.

Week 3

- Worked on new feature ticket for creating UI for Project Editor to upload and use multiple javascript files for generation and update.

Week 4

- Worked on new feature ticket for creating UI for Project Editor to upload and use multiple javascript files for generation and update.

April 2022

Week 1

- Worked on new feature ticket for creating UI for Project Editor to upload and use multiple javascript files for generation and update.
- Worked on a Project Editor bug ticket (NoSQL All data is displayed when no current link is selected).

Week 2

- Worked on new feature ticket for having a unified tooltip style for all Project Editor themes.
- Worked on IB Admin bug ticket (PDF Generation record not shown).

Week 3

- Worked on a Publisher bug ticket (Custom Layout).
- Worked on documentation for the new feature of uploading and using multiple javascript files for generations and update.
- Worked on new feature ticket for having a unified tooltip style for all Project Editor themes.

Week 4

- Worked on Job automation bug ticket (Uploaded data XML file does not get saved).
- Worked on new feature ticket for having a unified tooltip style for all Project Editor themes.
- Worked on new feature ticket for having the html5 output be responsive.

May 2022

Week 1

- Worked on new feature ticket for having a unified tooltip style for all Project Editor themes.
- Worked on new feature ticket for having the html5 output be responsive.
- Worked on new feature to backup, restore and update ibsso user data in IB Admin.

Week 2

- Worked on new feature ticket for having a unified tooltip style for all Project Editor themes.
- Worked on new feature to backup, restore and update ibsso user data in IB Admin.
- Worked on Project Editor bug for Text frame unit.

Week 3

- Worked on new feature ticket for having a unified tooltip style for all Project Editor themes.
- Worked on new feature to backup, restore and update ibsso user data in IB Admin.
- Worked on Project Editor bug for Text frame unit.

Week 4

- Worked on Batch Client bug ticket (Duplicate output files are created).
- Worked on new feature ticket for having the html5 output be responsive.

June 2022

Week 1

- Worked on Job Automation bug ticket (Error while reading XML Header).
- Worked on Publication Wizard bug ticket (Exceptions are thrown in PW logs).
- Worked in IB Admin bug ticket (Errors in Admin logs on launching Admin).

Overall Experience

My Internship at InBetween has been a wonderful and growing experience. Facing newer challenges every day is a norm here at InBetween. It was a completely new environment where I first encountered the transaction between student life and industry life with new roles and responsibilities. Initially it was hard to adapt to a new place but slowly I got settled very well. The work environment is so casual & friendly that it feels comfortable. I made many new friends here who have helped me with many technology related doubts as well as industrial doubts.

At InBetween, I was never restricted to just my project team. I was provided freedom to interact, consult seek help and guidance, etc. from any colleagues. The biggest skills that were enhanced during the internship was the ability to adapt, learn, multitasking & time management. This internship has given me insights into the software world and how things actually work in the industry. The internship has been very technical and has improved my technical knowledge tremendously.

To conclude, my internship in InBetween has inspired me to pursue a career in the field of software development technology and to excel in it. It was a great learning experience and I consider myself honored for being a part of InBetween Software Development PVT. Ltd.

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