



AddSearch Case 1

(Working In Distant Teams)

Presented by

Team Pentacoders

Members

Chaminda Kumara

Kanchan Randesh

Layasiri Dinesh

Govinda

Iqra

CONTENTS

1	INTRODUCTION	5
2	CHALLENGE	6
3	PROPOSED SOLUTION	7
4	DEI PRACTICES FOR DASHBOARD	9
4.1	Diversity.....	9
4.1.1	Demographic Visualization:	9
4.1.2	Multilingual Support:	9
4.1.3	Cultural Sensitivity Features:.....	9
4.1.4	Time Zone Integration:	9
4.1.5	Accessibility:	10
4.2	Equity.....	10
4.2.1	Equal Access to Information	10
4.2.2	Fair Workload Distribution	10
4.2.3	Inclusive Decision-Making	10
4.2.4	Equitable Career Growth & Recognition	10
4.2.5	Support for Work-Life Balance	11
4.3	Inclusion	11
4.3.1	Inclusive Communication & Collaboration	11
4.3.2	Accessibility & Usability	11
4.3.3	Equal Participation & Recognition	12
4.3.4	Fair Workload & Well-being Monitoring	12
5	TEAM BOARD	14
5.1	Team Members.....	14
5.2	Mentorship & Support	15
5.3	Knowledge sharing	15
5.4	Newsfeed	16
5.5	Livestream	16
5.6	DEI Week Challenge	17

5.7	Leaderboard	17
6	CHAT BOT	18
6.1	How Sentiment Analysis works	18
6.1.1	Text Processing	18
6.1.2	Extract Features	18
6.1.3	Sentiment Classification	19
6.2	Process of Chatbot	19
7	WEB PORTAL	20
7.1	Choose Language	21
7.2	Change Site Theme	21
8	CONCLUSION	22

Figures

Figure 1 - Teamboard	13
Figure 2 – Mebmer Widget.....	14
Figure 3 – Mentorship & Support Widget	15
Figure 4 – Knowledge Sharing Widget	15
Figure 5 – Newsfeed Widget	16
Figure 6 – Team Chat Widget	16
Figure 7 – Week Challenge Banner	17
Figure 8 – Badges and Rankings	17
Figure 9 – Sentiment Analysis Process.....	18
Figure 10 – Chatbot Process	19
Figure 11 - DEllitics Portal.....	20
Figure 12 – Language Selector.....	21

1 INTRODUCTION

AddSearch is a Finnish software company specializing in advanced content and product search solutions for large websites and online stores worldwide. With a customer base spanning over 1,800 organizations in more than 50 countries, AddSearch's technology powers millions of users globally. Recognized for its commitment to inclusivity, AddSearch won a prestigious DEI award in 2024 in the SME category, further solidifying its reputation as a leader in advancing diversity, equity, and inclusion in the workplace and its operations.

The company operates with a fully remote team of 17 professionals spread across eight countries (Finland, Spain, UK, Poland, Turkey, India, Sri Lanka, Egypt) on three continents. This multicultural and internationally diverse team is united by a shared goal of delivering exceptional digital solutions while embracing inclusivity in its operations.

2 CHALLENGE

We are asked to suggest a tangible solution to facilitate effective collaboration among the AddSearch team using DEI Practices.

3 PROPOSED SOLUTION

According to the details given, AddSearch expects an innovative solution for the team collaboration. In our perspective, the team members work in remote locations and there is no any physical interaction between the members. They might have only professional relationship.

Lets look at some disadvantages in remote work environement.

- Lack of Face to face interaction leads to misunderstaing due to the absence of non-verbal cues.
- Delays in response time since asynchronous communication slow down decision making.
- Coordination across differnt timezones.
- Lack of clear boundries between work and personal life lead long working hours.
- Some members may have self dicipline and motivational issues due to lack of supervision.
- Limited networking opportunites to build up relationships through casual interactions.
- Cultural differences lead to misalignment in workplace expectations across remote locations.
- Remote employees may be overlooked for promotions compared to onsite employees.

As per the above facts, we thought to build up an environemnt to increase their interaction, it should be an interface which faciliate to exchange their belifes and emotions at the same time.

As a solution, we suggest a virtual platform to collaborate with team members, aslo some group activities and competitions to improve knowledge of the team members and also the team bond.

The solution will include a dashboard, Web Application and a Chat Bot. The chat bot will be aware of team members mental health and well-being.

4 DEI PRACTICES FOR DASHBOARD

Diversity, Equity, and Inclusion (DEI) practices aim to create fair, inclusive, and diverse environments in workplaces, communities, and organizations. In here, we have discussed about those practices that we hope to implement on our solution dashboard.

4.1 Diversity

4.1.1 Demographic Visualization:

- Display demographic data (e.g., gender, ethnicity, nationality) with employee consent, visualized in an easy-to-understand format.
- Include employee images, national flags, and other relevant visuals to ensure representation across different categories.

4.1.2 Multilingual Support:

- Offer multiple language options to accommodate employees from diverse linguistic backgrounds.
- Ensure everyone can access information comfortably in their preferred language.

4.1.3 Cultural Sensitivity Features:

- Include reminders about cultural events and allow employees to share their cultural celebrations and practices.
- Enhance understanding of various customs and foster an environment that embraces cultural diversity.

4.1.4 Time Zone Integration:

- Display personalized time zone data to ensure everyone is aware of colleagues' availability.

- Promote respectful and efficient communication across different time zones.

4.1.5 Accessibility:

- Ensure the teamboard is accessible to employees with disabilities by incorporating features like keyboard navigation and adjustable text sizes.
- Promote inclusivity by allowing all employees to navigate and engage with the platform comfortably.

4.2 Equity

4.2.1 Equal Access to Information

- Ensure all team members, regardless of their time zone, have access to important discussions, decisions, and documentation.

4.2.2 Fair Workload Distribution

- Avoid giving more responsibilities to those in overlapping time zones while others have fewer tasks.

4.2.3 Inclusive Decision-Making

- Make sure all voices are heard, especially those who may not be online during key discussions.

4.2.4 Equitable Career Growth & Recognition

- Remote employees should have the same chances for promotions, leadership roles, and visibility as those working closer to headquarters.

4.2.5 Support for Work-Life Balance

- Respect different working hours and cultural backgrounds to prevent burnout.

4.3 Inclusion

4.3.1 Inclusive Communication & Collaboration

- Time Zone Awareness: Display teammates' working hours to promote fair scheduling and reduce meeting fatigue.
- Profile Preferences: Allow users to set and display their preferred names and profile images.
- Multilingual Interface & Real-Time Translation: Support multiple languages and provide AI-powered translations for messages.
- Customizable Notifications & Asynchronous Updates: Respect different work styles by letting users set notification preferences and access meeting summaries.

4.3.2 Accessibility & Usability

- Keyboard & Screen Reader Compatibility: Ensure full navigation without a mouse for users with disabilities.
- Dark Mode & Adjustable UI Settings: Allow users to change themes, font sizes, and contrast for better readability.
- Closed Captions & Transcripts for Meetings: Improve accessibility for deaf and hard-of-hearing team members.

4.3.3 Equal Participation & Recognition

- **Anonymous Feedback & Idea Sharing:** Encourage contributions without bias or hierarchy.
- **Diverse Contribution Recognition:** Acknowledge non-code contributions (e.g., mentorship, documentation, testing).
- **Skill-Based Mentorship Matching:** Help underrepresented developers find mentors aligned with their interests.

4.3.4 Fair Workload & Well-being Monitoring

- **Workload Balance Insights:** Identify task distribution patterns to prevent burnout.
- **Virtual Coffee Chat Pairing:** Promote casual interactions among distributed teams.
- **Global Holiday & Cultural Awareness:** Display international holidays to promote respect for different cultures.

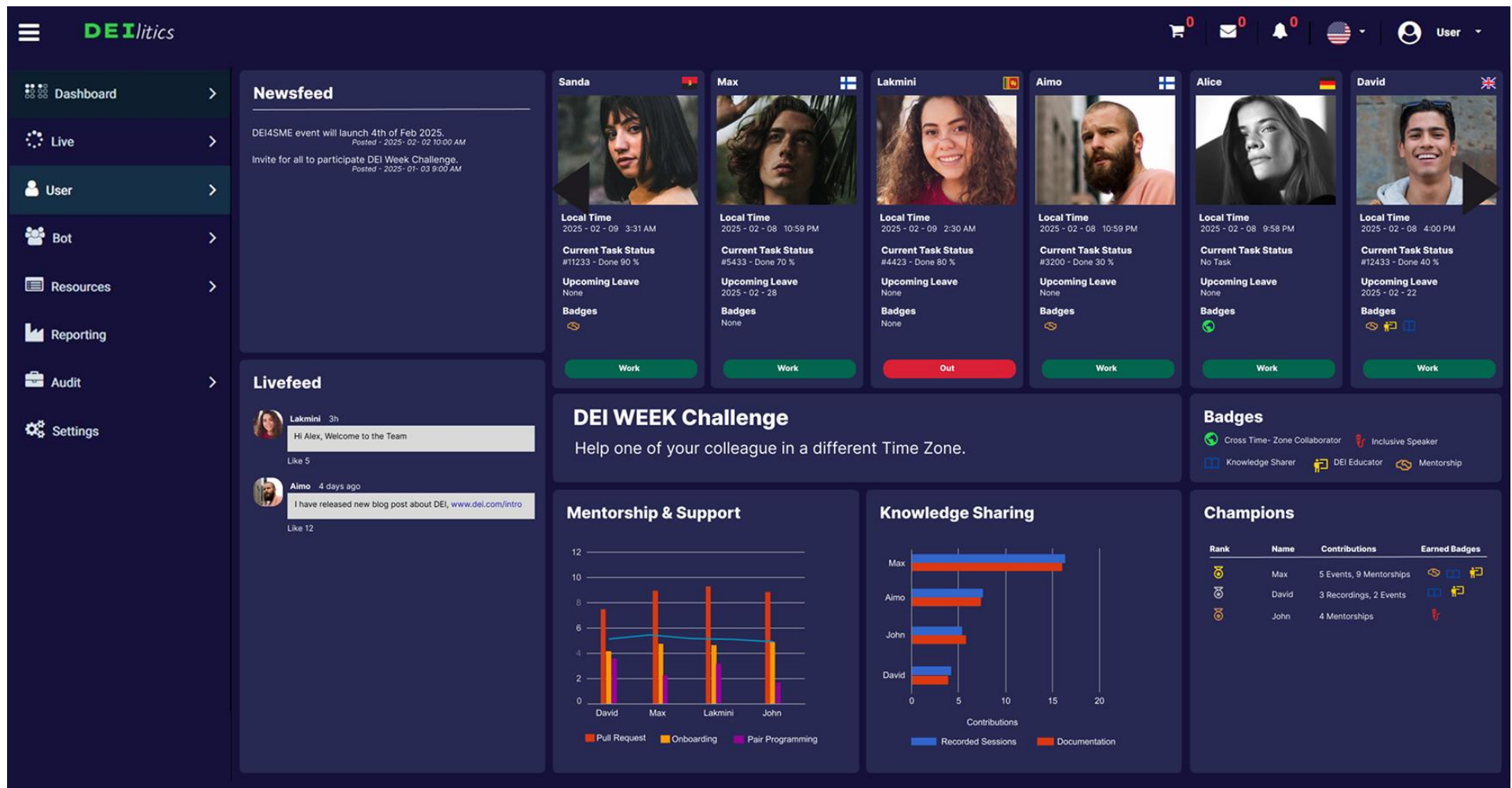


Figure 1 - Teamboard

5 TEAM BOARD

The above dashboard calls **Team Board**, because it displays team members and their details at a glance. This team board is a live dashboard that updates in real-time whenever a particular action occurs. It gives a live feeling as you are working together physically.

Let's take a detailed look at the features, how they connect you and your team members, and how DEI practices are implemented in the TEAM.

5.1 Team Members

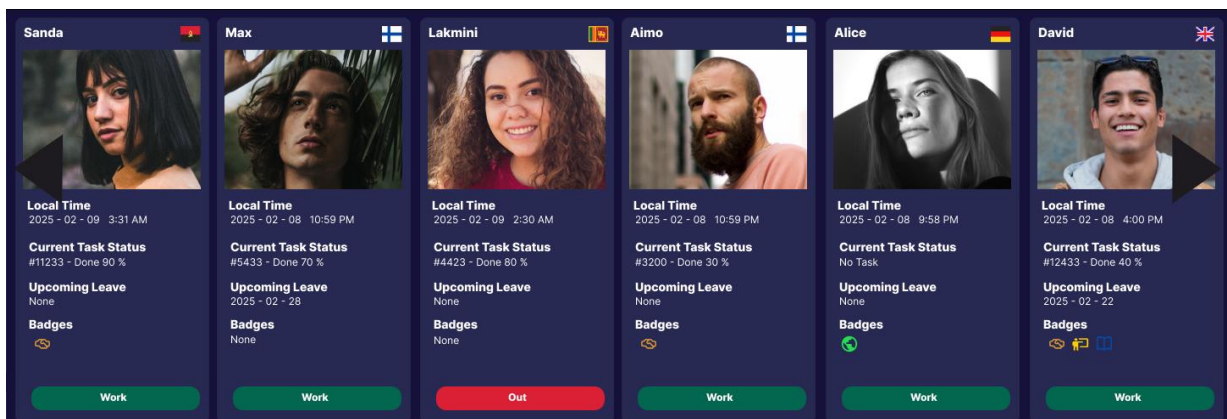


Figure 2 – Membmer Widget

This is a carousel component, all the members will show in this web component as a slide show which is cycling slowly. Local time, his /her current task status, upcoming leave and earned badges show as information. Also, the current status either work or not is shown in the bottom. It is easy to understand each member's status when you look at the dashboard.

5.2 Mentorship & Support

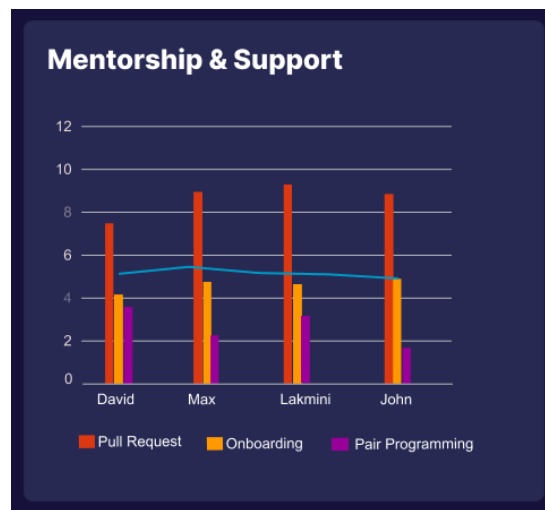


Figure 3 – Mentorship & Support Widget

Mentorship & Support widget shows which members perform well in code review, mentoring, assist to programming. This recognition motivates team members and they will continue their work happily 😊.

5.3 Knowledge sharing

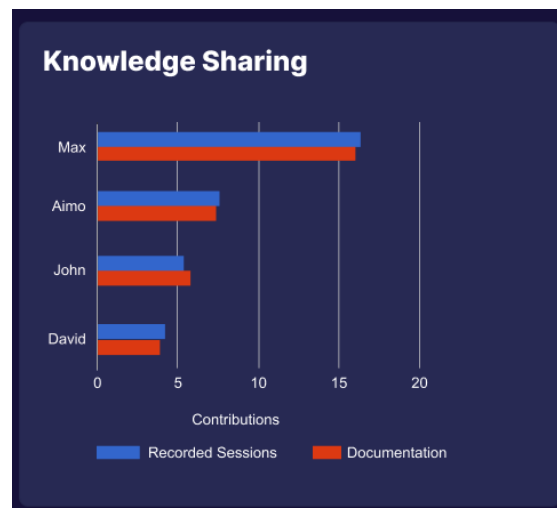


Figure 4 – Knowledge Sharing Widget

This dashboard widget represents how team members' contribution happens in knowledge sharing. Also, all members will be informed through the livefeed when you upload your sources.

5.4 Newsfeed

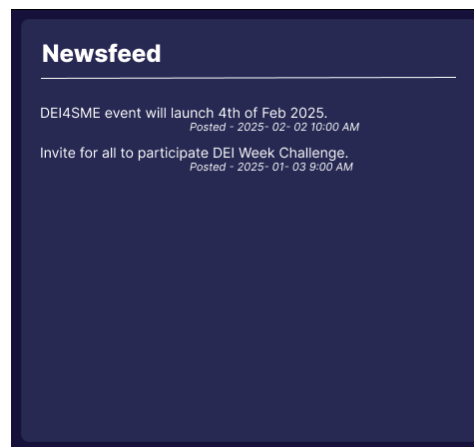


Figure 5 – Newsfeed Widget

Newsfeed can be used to inform important news for team members, you can transfer your message very quickly and easily through this widget. Also, the team members can see your message at the same time because of live update capability.

5.5 Livefeed

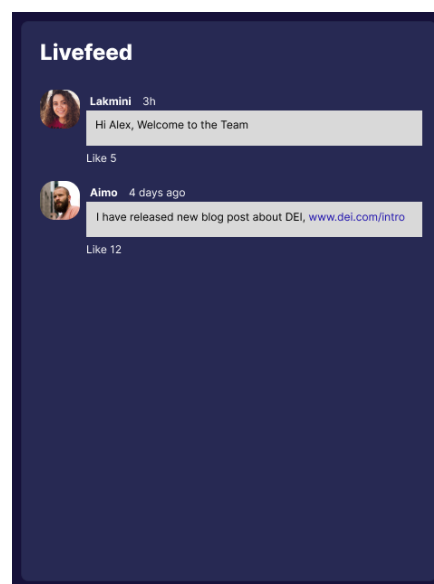


Figure 6 – Team Chat Widget

Livefeed is a common chat widget in the team board, it will help to share their thoughts and feelings with colleagues. It is very simple, transparent and straightforward communication.

channel. At the same time other members can respond to your message. Also, it can be used to show some notifications after you completed an activity like upload resources for knowledge sharing, code reviewing, etc...

5.6 DEI Week Challenge

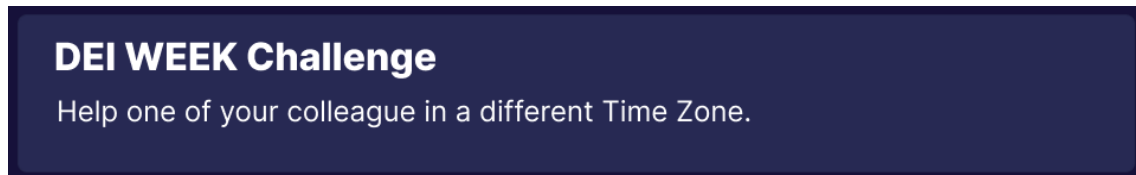


Figure 7 – Week Challenge Banner

In here, we propose to give a challenge for team members in every week to improve team collaboration. And also, this challenges can be used to ranking team members according to their mission completion. We also introduced a raking system based on badges.

5.7 Leaderboard

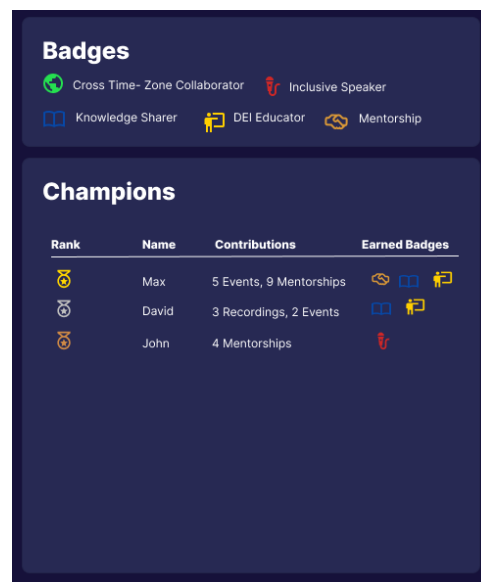


Figure 8 – Badges and Rankings

Here, we have introduced some badges. Team members can earn these badges after doing a relevant activity and that should be recorded in this system. The rank will go up according to count of badges you earned. Also, this might be considered their annual appraisals. 😊

6 CHAT BOT

This chat-bot designed to imitate human conversation through text and capture human emotions with classifying text into positive, negative or neutral. This process calls **sentiment analysis**.

6.1 How Sentiment Analysis works

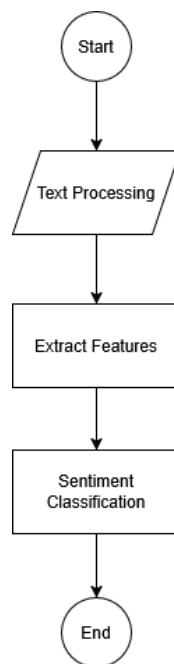


Figure 9 – Sentiment Analysis Process

6.1.1 Text Processing

In this phase, split the text into words and remove common words like "the", "this", "are", etc.. after that reduce the words to their root form (eg: working -> work, running -> run) . this reduction calls lemmatization.

6.1.2 Extract Features

There are different methods use for feature extration. Bag of Words (BoW), TF-IDF (Term Frequency- Inverse Document Frequency), Word Embeddings are leading methodologies to extract features from the text.

6.1.3 Sentiment Classification

There are three major approaches for sentiment classification.

- Rule-Based – list of word use calls lexicons (eg: LIWC, VADER, AFFIN)
- Machine Learning Models – Navie Bayes, SVM, Logistic Regression
- Deep Learning Models – LSTM, Transformers (BERT, GPT)

6.2 Process of Chatbot

Team members can do a free conversation with the chat bot, there is no limitation and available 24/7. it is good to motivate team members to use this chat bot.

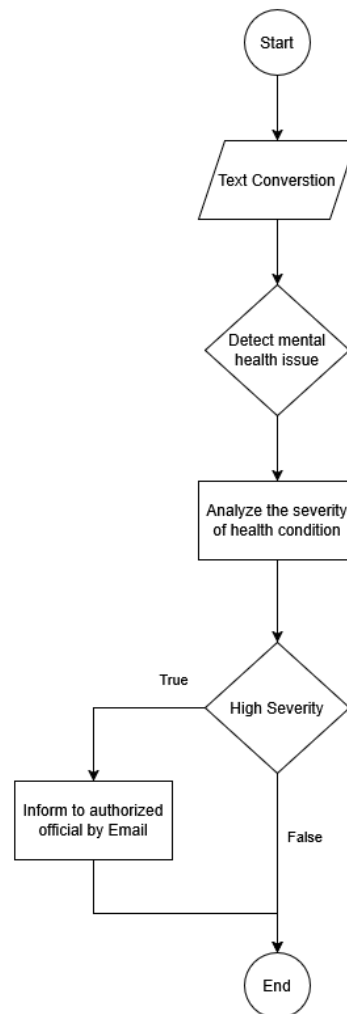


Figure 10 – Chatbot Process

7 WEB PORTAL

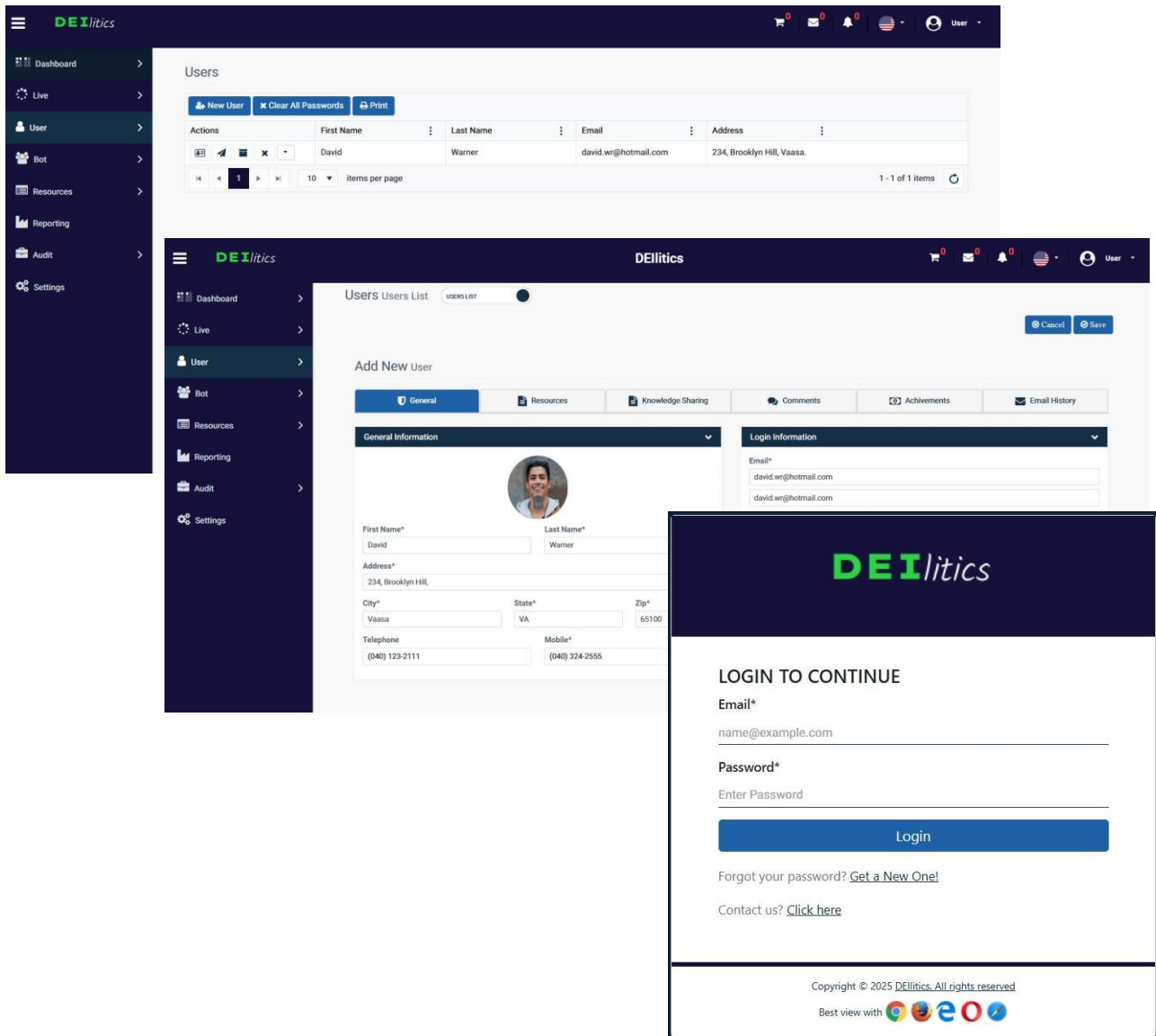


Figure 11 - DEIlitics Portal

DEIlitics is our web application. Teamboard and Chatbot are the main features of it. Web application is fully DEI friendly system. It supports to change system language, system colors according to user's preference. Also, the system is mobile friendly and it can use in mobile interactively.

7.1 Choose Language

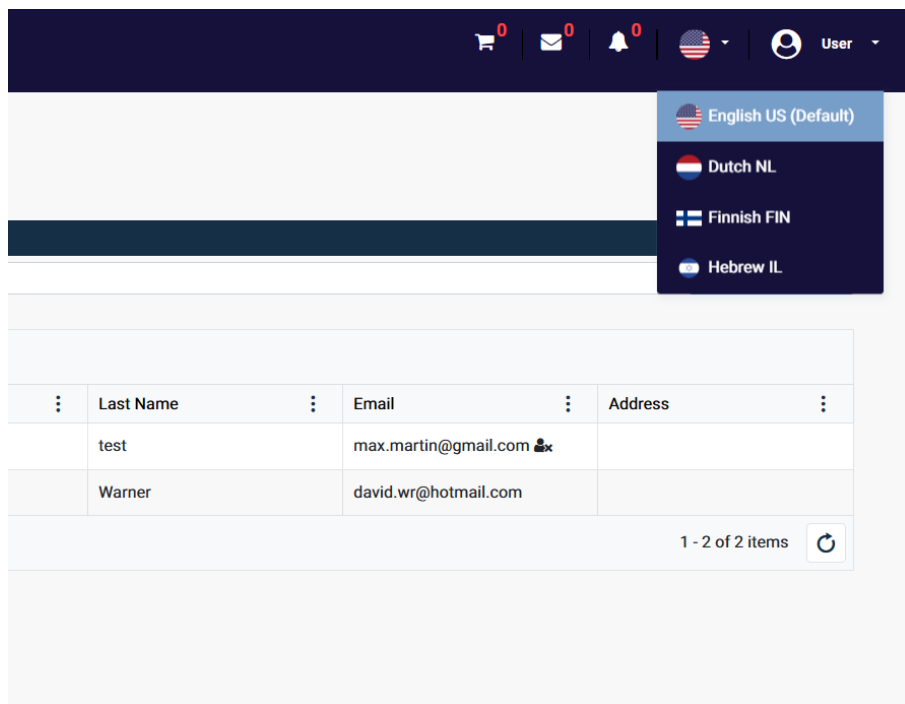


Figure 12 – Language Selector

7.2 Change Site Theme

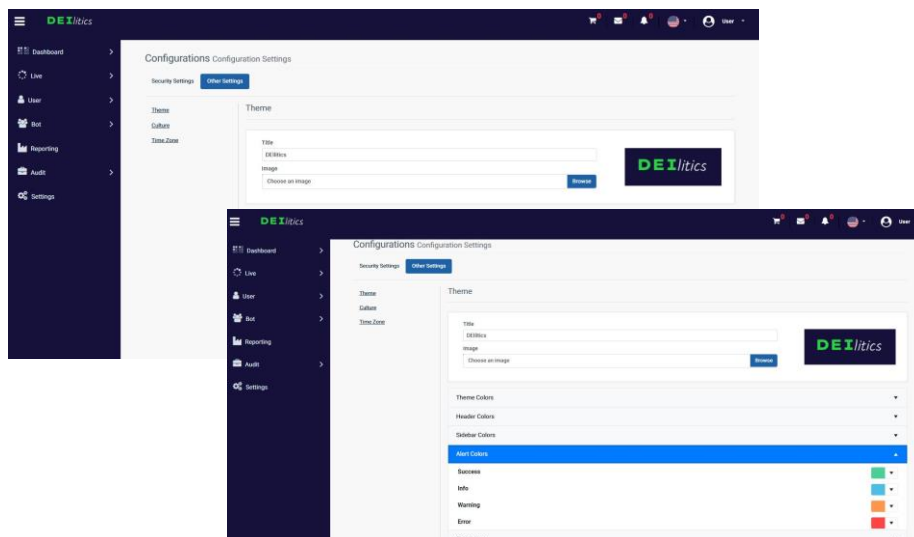


Figure 13 – Theme Settings

8 CONCLUSION

DEI (Diversity, Equity, and Inclusion) practice system is essential for promoting an inclusive workplace by enabling organizations to track, analyze, and improve their DEI initiatives. Through features like real-time updates, inclusive speaking, unbiased working culture, and interactive training modules, especially the system empowers small and medium companies to build diverse teams and equitable work environments.

Using modern web technologies, the application ensures accessibility, ease of use, and scalability, allowing organizations of all sizes to integrate DEI best practices into their operations. Although challenges such as data privacy, bias in AI-driven insights, and adoption resistance may arise, continuous refinement and user feedback can help enhance its effectiveness.

Finally, implementing a DEI practice system promotes accountability, promotes a culture of belonging, and drives meaningful change toward a more inclusive and equitable workplace for remote workers.

+ Q AddSearch

How to use DEI to support SMEs growth and strategy implementation? and How to resolve DEI conflicts in SMEs?

Challenge: How to Improve Internal Collaboration and Communication among Diverse Professionals When Working In Distance?

This challenge has been presented to participants of the DEI4SME Hackathon I (Finland & Online). It showcases the practical issues related to **diversity, equity, and inclusion (DEI)** in business, particularly in the context of **smaller enterprises (SMEs)**. Solving this challenge during the hackathon and incorporating it into teaching cases contributes to the development of skills necessary for building socially sustainable businesses in Europe and beyond, also supports the implementation of the **UN SDGs 8 and 10**.

About AddSearch

AddSearch is a Finnish software company specializing in advanced content and product search solutions for large websites and online stores globally. With over **1,800 customers spanning more than 50 countries**, AddSearch's technology powers millions of users worldwide.

AddSearch has earned a reputation for creating **technology** that is both **innovative and inclusive**. By continually pushing the boundaries of accessibility, the company attempts to enhance the search experience for all users, regardless of their abilities or limitations.

Recognized for its commitment to inclusivity, **AddSearch won a prestigious DEI award in 2024 in the SME category**, further solidifying its reputation as a leader in advancing diversity, equity, and inclusion in the workplace and its operations.

The company operates with a fully remote team of 17 professionals spread across eight countries (Finland, Spain, UK, Poland, Turkey, India, Sri Lanka, Egypt) on three continents. This multicultural and internationally diverse team is united by a shared goal of delivering exceptional digital solutions while embracing inclusivity in its operations.

The Challenge

As a fully remote and internationally diverse team, AddSearch faces unique challenges in promoting collaboration and inclusivity across different time zones, cultures, and communication styles. These dynamics occasionally lead to misunderstandings, hesitancy in providing feedback, and slowed work progress. Addressing these challenges requires a deeper understanding of DEI principles and innovative approaches to raising awareness within the organization and its operations.

The hackathon task invites participants to explore how AddSearch can raise awareness of DEI issues to:

- Improve internal collaboration and communication among team members with diverse cultural and professional backgrounds.
- Forward an inclusive workplace culture that encourages open dialogue and psychological safety.
- Demonstrate leadership in DEI practices within the tech industry, inspiring other SMEs to follow suit.

Please provide a tangible solutions on how to you facilitate effective collaboration within the team that is working in a above-described way. Please suggest processes, rituals, or programs that a company's CEO who is leading the team would adopt to ensure seamless collaborations and workflow.

Work Practices at the DEI Champion AddSearch

In their day-to-day, the team relies on the **asynchronous (async) working model**, which means that they work on their own time without the expectation of responding immediately. To gain alignment and understand the status of the tasks' completion, they use some **rituals** (e.g. everyday development team stand-ups for 15-30 minutes to share progress; weekly team meetings, weekly all-hands progress update meetings, product demos, occasional coffee or game breaks etc.) and **tools** (Slack, Google Meet, Mentiimeter).

From the **onboarding** on, the team aims to integrate the new joiners through the structured process. Team members are encouraged to set up **meetings with their colleagues to get to know each other**, informally as human beings and to understand their preferred ways of

working. There are communication guidelines to give common ground for internal communication, which speed up onboarding.

The team participates in the **anonymous survey** every 6 months about several aspects of work (including relations with the team members and manager, communication, and workload). The results are analyzed by the managers and shared with the entire team. During the discussions, the team is **encouraged to share** their point of view directly, but if it is not available or a preferred way of sharing, they can either use an anonymous tool (Beekast) or discuss the topics within their 1:1 with their manager. Ultimately, the **team is responsible for defining the action plans** to improve the working environment.



@dei4sme.project

@www.dei4sme.eu

@DEI4SME



Co-funded by
the European Union

The European Commission support for the production of this publication does not constitute an endorsement of the contents which reflects the views only of the authors, and the Commission cannot be held responsible for any use which may be made of the information contained therein.

