**Conclusion**

Here is the conclusion part of our report. We already have talked about the implementation and evaluation, and now it’s time to see the conclusion of our report.

**Critical evaluation**

**Things we done:**

**Three main functions:** According to our objectives from introduction section, the three main functions are all be completed.

**The badge system:** We done this system as a part of positive feedback for our users. Once they finish some tasks, they will let them become colourful to improve their activities for enhance the good habit of sustainable lifestyle.

**The dashboard:** This suggestion came from our client; we added the dashboard page for assisting the user familiar with web application quickly.

**The administrative system:** This advice came from our supervisor; we added one administrative system page for helping those people who want to maintain and develop our web application.

**The guidance:** To improvement the user experience, we also added the guidance for each main page to helping new user familiar with web application.

In conclusion, we created a web application which can help people live more sustainable way indeed. And for the target aim

**Things we are not able to do:**

**The Result:** It is a short-term project, so it is nearly impossible to observe if this project assists the people enhance their sustainable habits according to our project’s aim.

**The IBM chatbot**: According to our supervisor, the chatbot provided from the IBM company is something more like the interpreter, so we are not able to training it and then let it become one truly AI chatbot.

**Further work**

1. **Function Improvement**

**From the client:**

We held weekly online meetings with the client, which facilitated a series of constructive feedback sessions. During these interactions, we received numerous suggestions from IBM.

**Total number analysing:** They recommended incorporating statistical methods to **analyse the number of users utilizing** this web application for the admin improve the user experience.

**Colourblind mode**: They recommended developing a **colourblind mode** to cater specifically to users with colour vision deficiencies, ensuring that the application is accessible and user-friendly. However, become the limited time, we haven’t finished those new functions.

**From our project member own:**

**User setting**: The **user setting** will be a good choice for improve the user experience. It can includes **forget password function**, **change user profile function, switch the used language** and so on….

**From the other users’ feedback:**

**Dashboard page**: We are suggested to show some message to indicate the user go to routine page after they are adding the random task to their routine first time.

**AR tree page**: We are advised to display the tree point data in this page in order to let the user know the tree points they already got.

**The guidance bug of mobile view:** We are suggested to be more careful when occurring the problem of the UI shown in different devices.

**The administrator:** The administrator can publish the random task to some specific users.

1. **Testing**

**The absence of white box test:**

We did the **black box testing and the unit test**, it doesn’t enough for a project which will deploy after testing. However, as a three-month project, we must transfer our focus on the report writing part nearly the end of deadline. It is necessary to have the round and detailed testing before our project’s deploying, we think we will test our project more carefully if we have a bunch of time to do that.

1. **Deploying**

Our team members have completed the deployment, but we are facing instability issues. The temporary solution we found is to restart our cloud service regularly. We found the issues occurs because we didn’t put the database into single Relational Database Service (RDS), so will improve its stability if we have enough time to redeploy it properly.

1. **Evaluation**

Although we have done some surveys for evaluation our project, it is very hurry for one three-month project, if it is a long-term project, then we will have the enough time to do survey and then evaluating and improving our project in a more subjective way.

Here are three vital weaknesses:

1. **The Number**: We only find several of our classmates to evaluate our project as short-term user, which may cause the lack of the diversity and small total number (only 10~20 people).
2. **The Bias:** We find some people which have the relationship with our team members to evaluation our project as the long-term users, which might cause some bias because they know us well.
3. **The Time:** As we mentioned earlier, the time is also the key point for our evaluation, this short-term project has no time to complete one complex, round evaluation, bur if we have more time, we will do it better.

**Handover**

This project is open source, so our team members are responsible for maintaining the website. We tried to contact the sustainability group at our university to see if they would manage and promote the website, but they don't seem to be interested in it.

**Contribution statement**