**GL\_Happiness Index — Final Submission**

**GROUP 7**  
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**1. Team and Context (about 100 words)**

Our group, working as an Agile product team, developed a data visualization dashboard to explore global happiness and development data. We followed SCRUM, assigning clear roles in the group: Followed the **SCRUM framework** with defined roles:

* + Product Owner – *Dheeraj Parui*
  + Scrum Master – *Nilesh Mahato*
  + Developers – *all members*
* Planned work in **two short sprints**.
* Used **Python** and **Streamlit** for development.
* Managed tasks on **Trello**, moving cards from *To-do → Doing → Done*.
* Daily communication through **WhatsApp**.
* Gained experience in **real-world teamwork** and **Agile practices**.

**[Trello Board Screenshot]**

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*Caption: Screenshot 1 — Our Trello board showcasing sprint workflow and completed tasks.*

**2. Observed Practices**

We adapted SCRUM practices to match our small team size and fixed university deadlines. Each sprint lasted one week, focusing on specific goals like loading data, mapping scores, and later adding dashboard filters and charts. Sprint planning meetings were held online, where we agreed on the tasks to complete and moved cards in Trello accordingly. Instead of daily stand-up meetings, we shared quick updates on WhatsApp, saving time but ensuring everyone stayed informed. At the end of each sprint, we did a combined sprint review and retrospective, demoing our progress and noting what could be improved.

* **Artefact Management:**
  + Trello tracked our product and sprint backlogs.
  + Our working dashboard and code were stored in GitHub.
* **Release Planning:** Each sprint delivered a basic version of the dashboard with new features.
* **Requirement Management:** User stories were refined and tracked as Trello cards.
* **Effort Estimation:** We discussed and split up tasks together, keeping work simple and clear.
* **Quality Assurance:** We peer-reviewed code and tested features before marking cards “done.”
* **Use of Tools:** Trello (task tracking), WhatsApp (communication), Python/Streamlit (development).
* **Coordination:** Ongoing WhatsApp updates and active Trello management kept us on track.

**[Dashboard page showing main features]**

1. A screenshot of a computer

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*Caption: Screenshot 2 — The Python dashboard created by our team, showing interactive map and filters. Where in filer we can see user can select their choise.*

**3. Analysis with an Agile Lens**

Throughout our work, we saw clear benefits and a few challenges with our Agile adoption. The Trello board provided proof of visible progress: cards like “Test dashboard” and “Build map” moving through columns showed actual teamwork and results. Splitting work into two sprints made our goals clear, with planned upgrades and delivered results after every cycle. Using WhatsApp for stand-ups was convenient for our schedules, but we also noticed it can miss deeper blockers if not checked properly.

**Strengths**

* Clear visibility of project status and who did what, thanks to Trello and task division.
* Fast delivery of working software, with new dashboard features rolled out each sprint.
* Easy adaptation: combining reviews with retrospectives allowed us to get feedback and reflect, without long meetings.

**Weaknesses**

* Combining review and retrospective meant less detailed feedback and process improvement.
* Not using formal story points sometimes made it hard to judge effort per task, leading to uneven workloads.

**Suggestions for Improvement**

* Split review and retrospective meetings for more focused feedback and reflection.
* Add simple story point estimates or checklists to Trello cards for better planning.
* Expand board with lists like “Review/Testing” for clearer workflow.

**4. Reflection**

* Learned the value of **simple Agile practices** in a student project.
* **Trello + WhatsApp** kept the team aligned and tasks transparent.
* Understood the importance of **regular feedback, task tracking, and teamwork** for steady progress.
* Identified areas to improve:
  + Holding **separate feedback meetings**
  + Adding **task estimates** for better planning
* Overall, the project made **Agile concepts easier to understand and apply** in future group work.
  + 1. Final work Screenshot:

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* + 1. Developer code works:

A screenshot of a computer program

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* + 1. Git repository: <https://github.com/nileshkmahato/GL_happiness_dashboard>