Scrum Methodology for Data Mining Project

According to me for a team of 4, Scrum methodology would be the best option to complete the project within the given timeframe. Scrum is a lightweight framework that is well-suited for small teams and projects with changing requirements. It focuses on delivering working software in short time-boxed iterations called sprints, which align well with the goal of completing the project in 9 weeks.

The Scrum framework includes the following roles, events, and artifacts:

Roles: Product Owner, Scrum Master, and Development Team

Events: Sprint Planning, Daily Scrum, Sprint Review, and Sprint Retrospective

Artifacts: Product Backlog, Sprint Backlog, and Increment

Here is a suggested team meeting schedule that aligns with the Scrum methodology:

Sprint Planning Meeting:

- **Time:** 1st Monday of every sprint (every week) at 7 PM
- **Purpose:** To plan and prioritize the tasks for the upcoming sprint.
- **Attendees:** All team members

Daily Scrum Meeting:

- **Time:** 7:00 PM (Monday-Tuesday-Thursday-Friday)
- **Purpose:** To discuss the progress of work and any blockers/concerns that need to be addressed.
- **Attendees:** Development Team

Sprint Review Meeting:

- **Time:** Last Friday of every sprint (every 2 weeks) at 7 PM
- **Purpose:** To review the completed tasks and demonstrate the work done to Dr. Passi
- **Attendees:** All team members, and Dr. Passi

Sprint Retrospective Meeting:

- **Time:** Last Friday of every sprint (every 2 weeks) at 7:30 PM
- **Purpose:** To reflect on the past sprint, identify areas of improvement and make actionable plans for the next sprint.
- **Attendees:** All team members

To complete the project in 9 weeks using Scrum methodology, the following roles can be assigned to the team members:

Product Owner: Rishabh Dev
- Responsible for managing the product backlog and ensuring that the team is working on the most important features and deliverables.
- Communicating with Dr. Passi to gather and prioritize requirements and makes decisions on behalf of the team.
- The product owner is also responsible for the final outcome of the project.

Scrum Master: Mattew Faubert/Akash Jassal
- Responsible for facilitating the scrum events, helping the team to follow the scrum framework, and removing any obstacles that may arise.
- Ensuring that the team is following the scrum practices and helping the team to improve.

Development Team: Mattew Faubert/Akash Jassal and Iman Kiani/ Rishabh Dev
- Responsible for implementing the product backlog items and delivering working software in each sprint.
- Collaborating with each other to estimate, plan and deliver the work in each sprint.
- The team is self-organizing and cross-functional, meaning that each member has the skills and flexibility to work on different tasks as needed.

Note: These roles and responsibilities are flexible and could be reassigned depending on the team's preference and the specific needs of the project. It's also important that the team members understand their role and work together to achieve the project's goals and objectives.

In terms of technologies, we can use the following:
- **Python** for data cleaning and pre-processing, as well as implementing the clustering algorithms.
- **Scikit-learn**, **Pandas** and **Numpy** libraries in Python for data manipulation and analysis.
- **Jupyter Notebook** or **Google Colab** for code development and experimentation.
- **Git** for version control and collaboration among team members.
- **Trello** or **Asana** or **Miro** for task management and tracking.
- **Slack** or **Microsoft Teams** for communication and collaboration among team members.

Note: This is just a suggestion, and we can choose to use different technologies and methodology as per their convenience and respective individual expertise.