**Catalyst Match Requirements**

* **Tech stack:** MERN stack (Frontend- React, Backend- Express, Node, Database – Mongodb). Can switch to another tech stack if deemed necessary.
* Login/Register and authentication functions for user.
* User profile generation with relevant details stored in database.
* User Avatar generation. Can use the DiceBear library (<https://github.com/dicebear/dicebear>)
* Real-time user messaging function. Maybe use SocketIO (https://github.com/socketio/socket.io)?
* Gamification i.e., achievement system for unlocking user avatars, badges for individual etc.
* “Catalyst Profile” generation using Big Five personality test having used a Machine Learning algorithm. (This point is actually using the big 5 personality logic to calculate the scores of users to determine their personality type)
* User matching based on Machine Learning algorithm results. Factors include user education background, similar interests, personality test results.