Technology has played a crucial part in changing how education is offered and received, and this change has resulted in considerable breakthroughs in the education sector. Utilizing recommendation algorithms in teaching is one area that has made considerable advancements. These technologies give students the opportunity for tailored learning experiences, improving the effectiveness, efficiency, and engagement of the classroom. The suggestion system will be run by the counselor for kids between the ages of 6 and 16 and will be based on student data, according to our team's answer to the project. The content-based filtering strategy suggests to student’s courses that are similar based on the features of the courses. Based on the hypothesis that students who are interested in one topic will probably be interested in courses that cover a related area, this is done. On the other hand, collaborative filtering is based on the endorsement of courses that other students with related interests have taken. This is predicated on the idea that pupils with comparable interests will probably take comparable courses.

This data is then used by the algorithm to forecast which courses a user is most likely to be interested in. Contrarily, a mathematical method known as cosine similarity assesses how similar two vectors—in this case, the course vectors—are to one another. Between -1 and 1, it measures the cosine of the angle formed by two vectors. The similarity of the two courses is measured by how closely their cosine similarity approaches 1. It takes several steps to implement the suggested solution. Students' academic records, interests, hobbies, and other pertinent information will first be gathered. Second, this data will be pre-processed and changed into a structure suitable for the algorithm used to provide recommendations. To make course recommendations based on the data provided by the student, the hybrid filtering method and cosine similarity will be employed. The recommendations will then be evaluated by the counselor to make sure they are acceptable and pertinent, and they will be approved.

This approach will, in our opinion, have a number of advantages. First, by automating the course recommendation process, the recommendation system will free up counselors' time. A better academic achievement for the pupils will result from the recommendations being more precise and tailored. Finally, It will be made possible by the system to guarantee that all students have equitable access to course recommendations. It is possible to achieve a more equitable distribution of course recommendations by employing an AI-based approach because the recommendations will be based on objective facts as opposed to subjective prejudices.

In summary, our team's approach to the project is to develop a recommendation system for kids between the ages of 6 and 16 based on student data, using a hybrid filtering algorithm and cosine similarity to produce tailored recommendations. The system, which will be run by counselors, will have a number of advantages including more fair distribution of recommendations, time savings, and individualized course recommendations.