**ABSTRACT**

This paper is based on the most advanced technology in the recent times that are employed to build a full stack e-commerce web application. The basic fundamental concepts of the MEAN stack are thoroughly explained along with the advanced features as well as their usage in the application as to how we can develop highly optimized website which can load quickly and ensure complete security from cyber threats. The MEAN stack is regarded as one of the most prevalent Technology that is used in order to shape a full stack web application.

E-commerce is the backbone of online sellers. It also opens opportunities in the business sector. MEAN stack is used in e-commerce websites as it provides two-way data binding for most trafficking sites. The advantages they provide can no longer meet the challenges for the developers as the demand increases. Nx plays a major role to overcome challenges, when Nx is added to a modern Front-end like Angular and Back-end like Express, it makes scaling easy. Modern techniques such as distributed task execution and computation make sure the CI times remain fast, even after adding projects to the workspace. The focus of this study is to design and implement an E-commerce system using some emerging JavaScript technologies that include MongoDB, Express. JS, Node. JS, and Angular 14 along with NxMonorepo which is an added advantage of speed and flexibility of this technology when compared to another traditional stack. Nxmonorepo makes the MEAN stack implementation 3 times faster than the previous implementation of the MEAN stack..