

Question Paper Generation using Bloom's Taxonomy

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Abstract: *The "Question Paper Generator using Bloom's Taxonomy" is a high-tech, AI-based tool designed to make the generation of varied and well-balanced assessments easier for instructors. A wide variety of input sources, including syllabus documents, banks of questions, and even historical exams, are analysed and classified by NLP and machine learning into Bloom's Taxonomy cognitive levels: Remember, Understand, Apply, Analyse, Evaluate, and Create. The AI model is actually placed in an intuitive web application with which educators can readily update such parameters as total marks, question difficulty, and the distribution of cognitive levels. This tool provides a logical interface where users can create assessments centered on standards for education and elicit thinking at different cognitive dimensions. Additionally, the web application feeds back a graphic report that plots through Bloom's Taxonomy in such a way that cognitive distribution is just and transparent. With the infusion of AI in a web-based setting, the tool brings forth practical and accessible solutions for educators in automating question papers creation to enrich their assessments. This application, therefore, holds best practices in instructional design through efficiency and scalability in the approach towards educational evaluation.*

Keywords: Question Paper Generator, Web Application, Bloom's Taxonomy, Natural Language Processing (NLP), Machine Learning, Cognitive Levels, Automated Assessment, Educational Technology