

# CareerCraft: A Multi-Quotient Based Automated Career Guidance System

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**Abstract:** CareerCraft is a web-based career guidance system designed to deliver personalized career recommendations through structured psychological assessments. The platform evaluates users across four key quotients—Intelligence Quotient (IQ), Emotional Quotient (EQ), Adversity Quotient (AQ), and Spiritual Quotient (SQ). These assessments are scored using predefined thresholds, and a final grade combination is generated to map students to suitable career paths and corresponding roadmaps.

The system adopts a modular architecture built using the Flask framework in Python, with SQLite for backend data management. It incorporates two primary algorithms: one for grading each psychological domain and another for retrieving career suggestions and roadmap information based on the resulting 4-letter grade code. The frontend is developed using HTML, CSS, JavaScript, and Bootstrap to ensure a responsive and userfriendly experience across devices.

Comprehensive testing, including unit, integration, and user acceptance testing, confirmed the system's reliability, with a 93% user satisfaction rate reported during pilot evaluations. CareerCraft reduces the dependency on manual counseling by offering a scalable, rule-based solution that is grounded in educational psychology. Future improvements include mobile application support, adaptive question pools, and multilingual options to broaden accessibility and impact...

**Keywords:** Career guidance, psychological assessment, educational technology, multi-quotient evaluation, modular architecture, Flask

