Development of Research Project Reporting Framework

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RPMS+

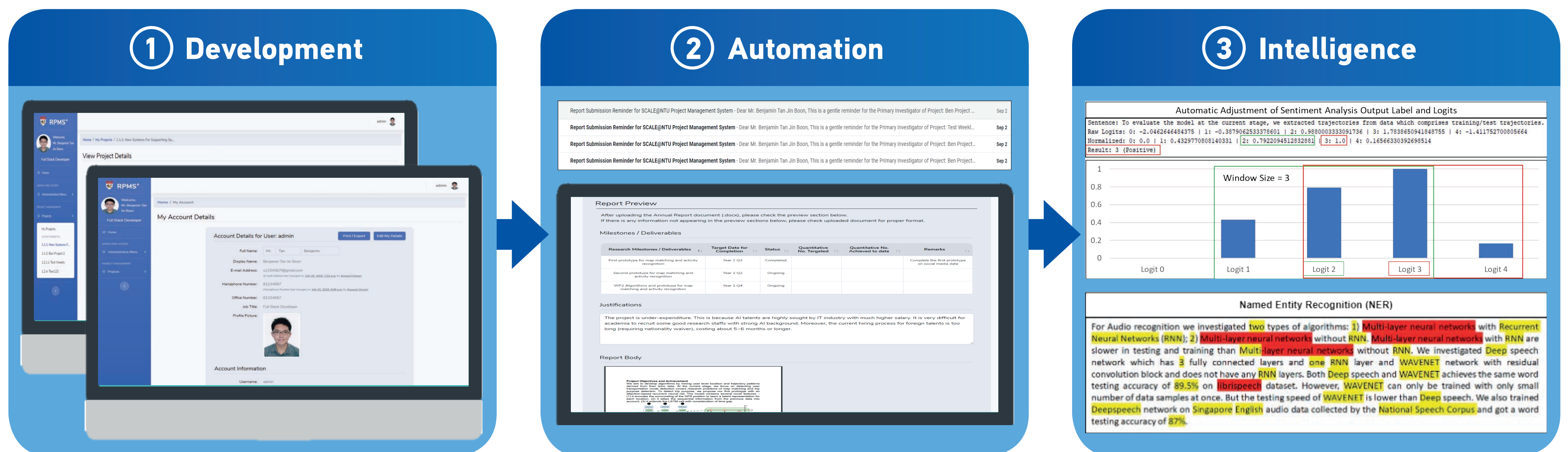*Development, Automation and Intelligence*

This project involves the design and development of a Management System that encapsulates the current Research Project Reporting Framework, while exploring process automation and practical Machine Learning technologies.

1. RPMS+ System Development

RPMS is a System that is developed from scratch to encapsulate the current Research Project Reporting Framework, and is approved for deployment. The System Architecture incorporates the Django Framework, and is designed for future maintainability and extensibility. The system's interface is also designed for maximal user experience.

2. Use-case Analysis & Process Automation

Analysis of the current reporting framework is carried out to identify areas that can be automated to reduce potential human error and man-hours required. RPMS automates routine Report Scheduling, sending of E-mail Reminders, and generation of consolidated Annual report documents through Autonomous Task Scheduling and Text Extraction.

① Development   ② Automation   ③ Intelligence

3. Exploratory: Assistive Extractive Text Summarizer (aETS)

This project explores the use of Machine Learning techniques in the ideation of practical tools to tackle domain-specific use-cases. The aETS Tool is designed to assist administrators in the summarization of text from research reports through Sentence Ranking, and uses a mixture of Extractive Text Summarization, Sentiment Analysis and Named Entity Recognition techniques, along with an empirically-derived Sentence Scoring system through feedback and experimentation.