NANYANG TECHNOLOGICAL UNIVERSITY
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School of Computer Science and Engineering
College of Engineering

Game-based Learning of Cryptographic Algorithms

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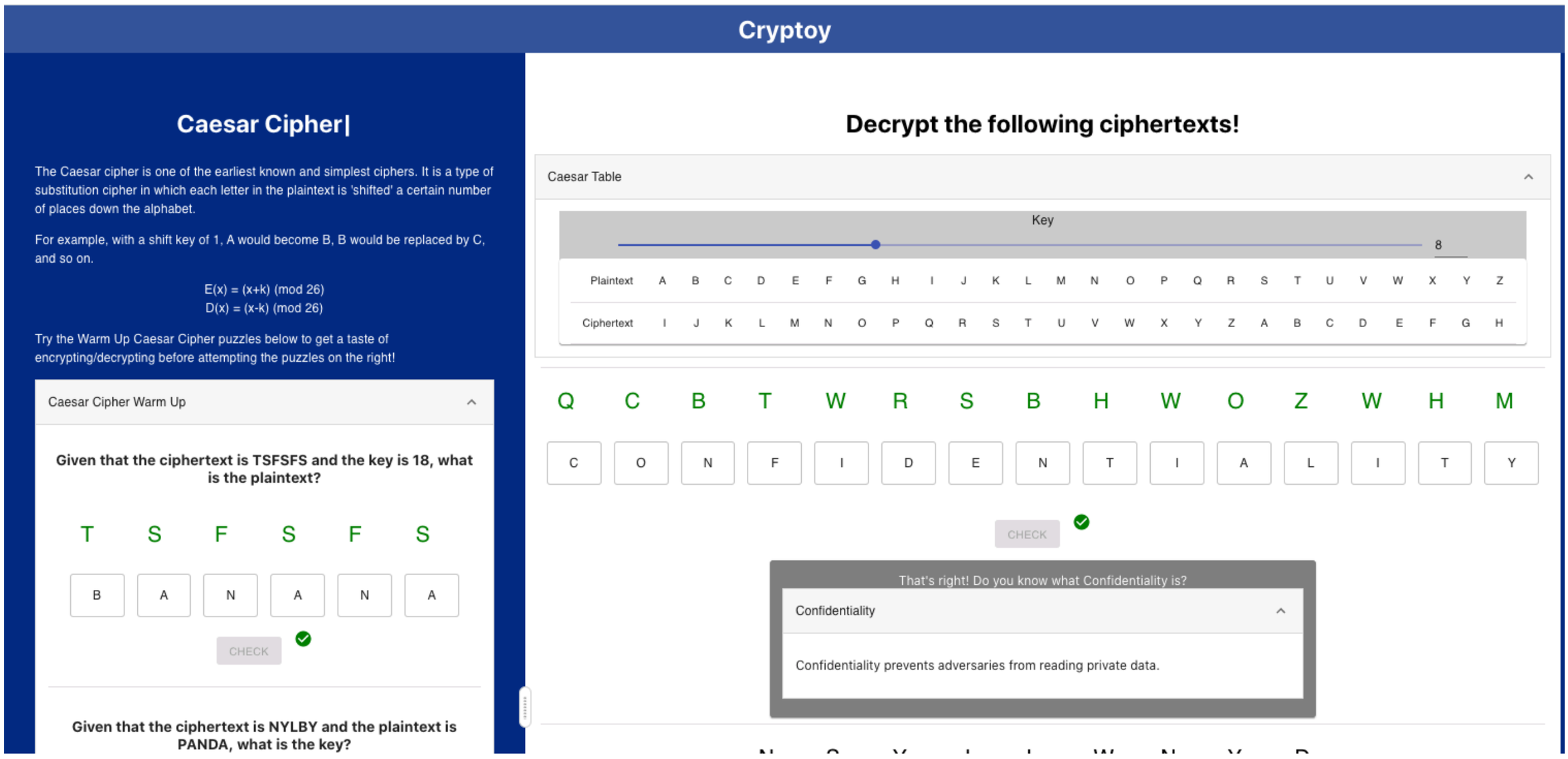

Project Objectives:

This project aims to produce a gamified web application (Cryptoy) that teaches users about cryptography. The main target audience is beginners to cryptography who may not necessarily have a background in Computer Science or Computer Engineering.

2 modes in Cryptoy:

"Learning Phase" helps users learn concepts while solving beginner level puzzles.

"Mastery Phase" lets users solve puzzles as a test of skills.

Gamification Framework (D6)

D6 FRAMEWORK IN CRYPTOY	
1. DEFINE OBJECTIVES	To educate people, through an enjoyable and engaging manner, on how encryption works and how it protects against cyberattacks.
2. DELINEATE TARGET BEHAVIOURS	Players feel enthusiastic about learning and are eager to exploring new concepts
3. DESCRIBE PLAYERS	Motivated by sense of accomplishment and empowerment
4. DEVISE ACTIVITY LOOPS	Feedback on learning progress
5. DO NOT FORGET THE FUN	Add in gaming elements guided by Octalysis Framework.
6. DEPLOY THE APPROPRIATE TOOLS	Build scalable web application using React.js.