

INFORMATION SECURITY IA-1

**Alfiya Anware
Alekyra Arra
Azhar Bamne**



ERROR DETECTION CODES SECURITY TOOLS



Features:

Checksum:

- **Robust Error Detection:** Checksums provide robust error detection capabilities, capable of detecting not only single-bit errors but also burst errors and other common transmission errors.
- **Block-Level Verification:** Checksums operate on blocks of data rather than individual bits, ensuring integrity across larger data units.



Parity Bit Method:

- **Simple Implementation:** The Parity Bit Method is straightforward to implement, involving the addition of a single bit to binary data.
- **Even/Odd Parity Selection:** Allow users to choose between even parity and odd parity based on their specific error detection requirements.
- **Single-Bit Error Detection:** It is primarily designed to detect single-bit errors in transmitted data, making it suitable for applications where error detection requirements are minimal.



THANK YOU!!