### PENDRIVE COPY PROTECTION

**Batch Number: PCSC-G17** 

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#### **Problem Statement Number:**

Organization: Hindustan Unilever Ltd

Category (Hardware / Software / Both) : **Software** 

Problem Description: e Develop a solution for copy protection of a DVD. It should not be copy-able to any other PC or DVD or media, in any OS platform. Some solutions are available from foreign vendors. But they require connection to Internet during DVD burning, which may not be acceptable in some cases. Hence an indigenous solution that does not require internet connection is required.

Difficulty Level: Simple

# **Analysis of Problem Statement**

#### **Technology Stack Components:**

- Encryption: Use AES-256 or RSA to encrypt content.
- **DRM**: Develop a custom DRM system that ties access to specific hardware signatures (PC/DVD player).
- Watermarking: Apply invisible digital watermarks for tracing.
- Anti-Ripping Software: Use anti-ripping tools to prevent copying.
- Firmware Locking: Lock the DVD to specific hardware using firmware protection.
- Custom File System: Design a proprietary file system only readable by authorized devices.
- Tamper Detection: Use hashing algorithms (SHA-256) to detect modifications.
- Offline Activation: Implement offline hardware-based activation mechanisms.

# **Analysis of Problem Statement (contd...)**

## Software and Hardware Requirements:

- Encryption Software: AES-256 or RSA-based encryption for securing DVD content.
- **DRM Software**: A custom DRM system that ties access to specific hardware signatures.
- DVD Burner: A high-quality DVD burner capable of handling encrypted files and custom file systems.
- Secure DVD Player: A DVD player with firmware support for encrypted content and DRM verification.

# Timeline of the Project (Gantt Chart)





