Scenario for video

**The video features two characters:**

* **Ruslan** — an energetic and curious host.
* **Ahmed Amir** — an expert with a sense of humor, explaining complex concepts in simple terms.

**1. Introduction (30 seconds)**

*Scene: Ruslan and Ahmed Amir are sitting at a table with a laptop, a board with graphs in the background.*

**Ruslan:** Hey Ahmed Amir! Have you heard how important it is to protect your data? But cryptography is just magic!

**Ahmed Amir:** Magic? No, it's science! Today, I'll show you how ciphers work and how we keep our secrets safe.

**Ruslan:** Awesome! Let’s get started!

**2. Confidentiality Concept (1 minute)**

*Scene: Ruslan holds a box with a lock.*

**Ruslan:** Imagine I’m sending you a secret message. But what if someone intercepts it?

**Ahmed Amir:** Then we need to encrypt it! For example, we use a lock (shows a key). Only those with the key can open and read it.

*Animation: The box symbolizes data, the key symbolizes the cipher. A third person appears, trying to open the box.*

**Ruslan:** What if someone fakes the key?

**Ahmed Amir:** That’s where digital signatures help. Watch this!

**3. Digital Signature (1 minute)**

*Scene: Ahmed Amir and Ruslan sign and verify a document.*

**Ahmed Amir:** A signature is like a unique stamp. Only I can put it on a document.

**Ruslan:** And how do we verify it?

*Animation: Creating a hash of the document, encrypting the hash with a private key.*

**Ahmed Amir:** The recipient decrypts the signature with my public key and compares the hash. If it matches, the document is authentic.

**4. Substitution (1 minute)**

*Scene: Ruslan writes "HELLO" on paper.*

**Ruslan:** What about replacing characters?

**Ahmed Amir:** That’s called a substitution cipher. For example, replacing each letter with another in the alphabet.

*Animation: The word "HELLO" becomes "IFMMP".*

**Ruslan:** Sounds simple, but can’t this be cracked?

**Ahmed Amir:** Exactly. That’s why we use more advanced methods, like block ciphers.

**5. Block Cipher (1 minute)**

*Scene: Ruslan and Ahmed Amir play with building blocks.*

**Ahmed Amir:** Block ciphers break data into fixed-size chunks.

*Animation: Text is divided into blocks and encrypted.*

**Ruslan:** What if the text is smaller than the block?

**Ahmed Amir:** Then we add padding. Let me show you how it works!

**6. Padding in SHA (1 minute)**

*Scene: Ahmed Amir explains using puzzle pieces.*

**Ahmed Amir:** Hashing converts data into a unique fingerprint. If the data doesn’t fill the block, we add padding — special characters.

*Animation: Data is padded with zeros to fill the block.*

**Ruslan:** Now I see why padding is important! But how do we protect against hackers?

**Ahmed Amir:** Let me show you!

**7. Man-in-the-Middle Attack (1 minute)**

*Scene: Ruslan and Ahmed Amir exchange messages, a third person intercepts them.*

**Ahmed Amir:** Imagine I’m sending you a message, but someone intercepts and alters it.

*Animation: The attacker reads the message, changes the text, and sends it forward.*

**Ruslan:** That’s scary! How do we prevent this?

**Ahmed Amir:** Use encryption and verify signatures. Now, let’s try creating a cipher ourselves!

**8. Caesar Cipher (1 minute)**

*Scene: Ruslan creates a cipher using the alphabet.*

**Ruslan:** Let’s say I shift each letter by three positions. "A" becomes "D."

**Ahmed Amir:** That’s the Caesar cipher. Simple, but not very secure. Still, it’s fun!

*Animation: Transforming text using a shift cipher.*

**9. Conclusion (30 seconds)**

*Scene: Ruslan and Ahmed Amir wrap up the discussion.*

**Ruslan:** Now I understand how ciphers work and why cryptography is so important.

**Ahmed Amir:** I hope you all learned something too. Use ciphers and stay safe!

*Ending animation: Cryptography logo, a lock closing.*