CRYPTOGRAPHIC LIBRARIES

Identify and name one open-source cryptographic library for each of the following programming languages. Provide a web link to the library:

- A. C or C++
- B. Java
- C. Python

For each of the libraries you have identified above, list and explain all requirements that are necessary for using the library functions in a piece of code. For example, for a JAVA library what classes need to be imported, etc.

For each library identified above, name a function that belongs to each of the following categories:

- A. Key Generation
- B. Hash Functions
- C. Block Ciphers

For each of these functions, provide detailed description, including the purpose of the function, its input and output variables, etc.

If the library chosen does not have any support for functions in a category, please state so.