SOFTWARE REQUIREMENT SPECIFICATIONS OF THE IMAGE ENCRYPTION & DECRYPTION PROGRAM

Approve	Date
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Check	**Description**
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Prep	Type	SRS
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1.   Scope

This document contains requirement specifications of an encryption/decryption program. These specifications include detailed Use-Case diagrams of the program and user subsystem and capability requirements. Capability requirements cover user screens and input/output relationships.

Project: Image Encryption&Decryption Program (TripleDES)

Description: A program that allows the user to encrypt or decrypt a bitmap image using TripleDES algorithm. This encryption/decryption process will be based on a 192-bit key. (24 characters) After encryption, the resulting image will be in bitmap format and its content will be deformed. In every case, the image will be decrypted. Only if the user enters the right key then s/he will be able to see the original image. Otherwise, s/he will see another deformed image.

1.1   References

Ian Sommerville, Software Engineering, Ed. 10, Pearson, 2015

Software Requirement Specifications of The Patient Treatment Recording System (Sample)

2. Overall Description

2.1 Use-Case Model

2.1.1 The actors of the program
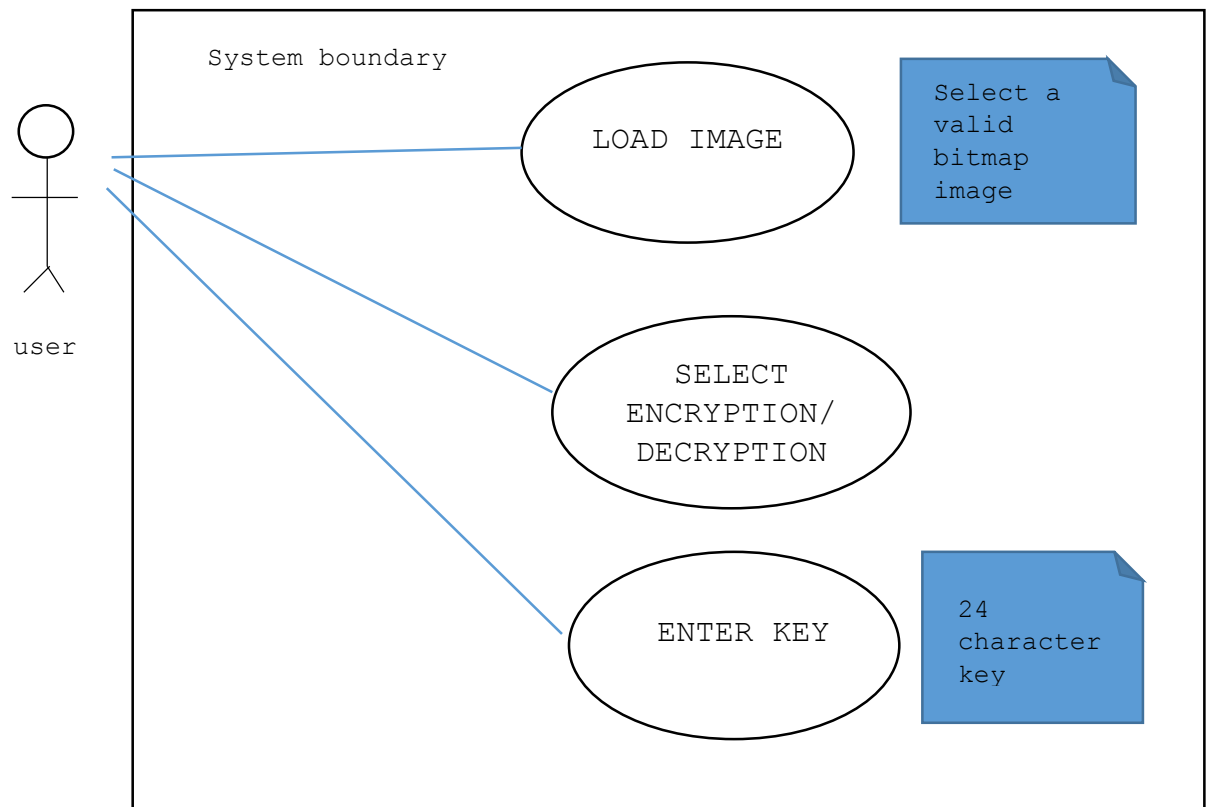
The program has one actor: User.

Figure 2.1.1. Use-Case Diagram of the Program

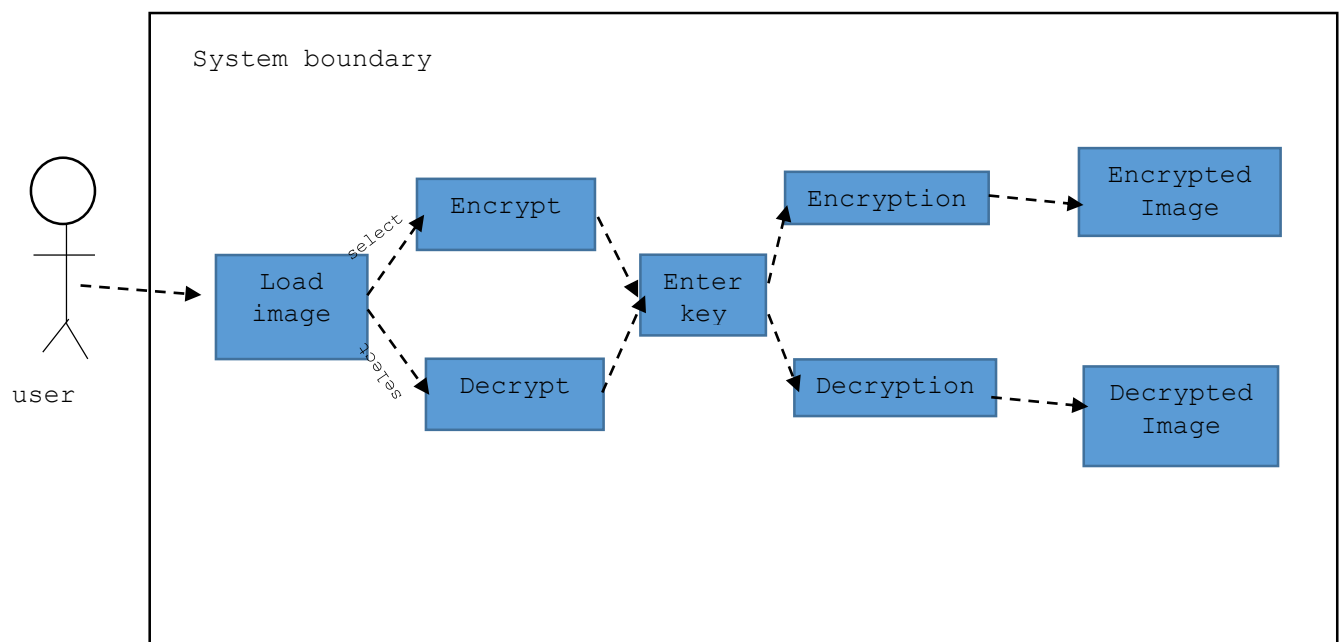| Requirement ID	Requirement Description
SRS-System-001:	The program shall only accept valid bitmap images.
SRS-System-002:	After an image is chosen to be encrypted/decrypted, the user shall be asked to enter a 24 character key.
SRS-System-003:	When encryption is selected, the image shall be encrypted using Triple DES algorithm. When decryption is selected, the image shall be decrypted using Triple DES algorithm.
SRS-System-004:	The program shall show the images to the user after encryption/decryption operation.

2.1.2 User

Figure 2.1.3 Detailed Use-Case Diagram of Doctor

Requirement ID	Requirement Description
SRS-User-001:	The user shall select a valid bitmap image.
SRS-User-002:	The user shall select encryption/decryption operation.
SRS-User-003:	The user shall enter a 24 character key.

3.   Capability Requirements

3.1   User

3.1.1 Load Image

Requirement ID	Clicked Button	Button Function
SRS-LoadImage-001	Load	if load==true encrypt/decrypt buttons become visible else "Please select a valid bitmap image."

3.1.2 Select Encryption

Requirement ID	Clicked Button	Button Function
SRS-SelEnc-001	Encryption	if clicked enter a key

3.1.3 Select Decryption

Requirement ID	Clicked Button	Button Function
SRS-SelDec-001	Decryption	if clicked enter a key

3.1.4 Encrypt/Decrypt

Requirement ID	Clicked Button	Button Function
SRS-EncDec-001	Encrypt/Decrypt	if clicked do the operation