Report for Capstone-1

TEAM MEMEBERS

Kalyan Prasad kancharla-11505710

Sofia -11502307

Prabhsimran Walia -11505111

Ankit Jangir -11511442

SUPERVISOR

Ms. Isha Malik

DECLARATION

We, **Sofia**(11502307), **Kalyan Prasad kancharla**(11505710), **Prabhsimran Singh Walia**(11505111), **Ankit Jangir**(11511442) students of 6th semester of B.tech in Computer Science and Engineering, Lovely Professional University, Phagwara, hereby declare that the project work entitled **"CRPYTOMEDIA"** submitted to Lovely Professional University during the academic year of 2018-19 , is the record of the original work done by us under the guidance of the **Ms. Isha Malik ,** Assistant Professor , Department of Computer Science And Engineering, Lovely Professional University, Phagwara. This work has not previously submitted to any other university for any examination.

Mentor Signature:

Ms. Isha Malik

Team Members:

Sofia- 11502307
Ankit Jangir -11511442

Prabhsimran Singh Walia -11505111

Kalyan Prasad kancharla-11505710

DEPARTMENT OF NETWORKING AND SECURITY

CERTIFICATE

This is to certify that the project entitled, **"CRYPTOMEDIA"** submitted by **SOFIA, PRABHSIMRAN SINGH WALIA, KALYAN PRASAD KANCHARLA, ANKIT JANGIR** have making a project under the guidance of supervisor (Ms. Isha Malik) during the year of 2018-19.

To the best of our knowledge, the matter embodied in the project has not been submitted to any other University / Institute for the award of any Degree or Diploma.

Date:

Supervisor

Ms. Isha Malik

ACKNOWLEDGEMENT

We have taken efforts in this project. However, it would not have been possible without the kind support and help of many individuals. We would like to extend our sincere thanks to all of them.

We are highly indebted to our Supervisor(Ms. Isha Malik) for her guidance and constant supervision as well as for providing necessary information regarding the project & also for her support in completing the project.

We would like to express my special gratitude and thanks to our supervisor for giving us such attention and time.

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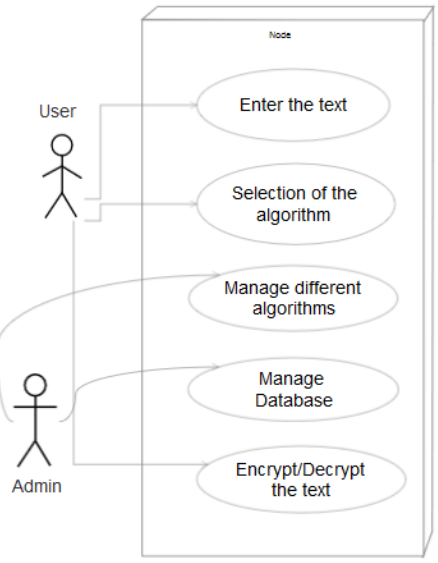
1. INTRODUCTION

1.1 Objective of the Project: The objective of the project is design and implement a tool which encrypts and decrypts the plain text using multiple algorithms and to enable this tool on every platform i.e. Windows, Linux, Android.

1.2 Description of the Project: The name of the tool is **CRYPTOMEDIA.** The main theme of project is that it consists of multiple hashing techniques and algorithms. A single platform for all the needs of cyber on the basis of encryption and decryption. Also the software works on every platform, we are willing to build a package installation model for the software, platform like windows, Linux, android.

1.3 Scope of the Project: The scope of our project is presently specific. Both the sender and the receiver must have this software installed on their systems to encrypt/decrypt the text .This includes all the users who want to keep their private information confidential by encrypting the data using appropriate algorithm based on that what level of security user want to apply on data.

1.3.1 Use Case Model



1.

2. SYSTEM DESCRIPTION

2.1 User Profiles:

There can be following different user profiles who can use our tool:

- A person who has more interest to do Cyber Security Capture the Flag challenges can use this tool very efficiently.
- A ethical hacker who want to encrypt/decrypt the data based on the level of security can use our tool.
- All the individuals who belongs to cyber world can this tool.

Moreover, person who have little knowledge about technical world and wants to secure his/her data can use this tool.

2.2 Functional Requirements: This requirement outlines the functional capability that the system can be able to meet the user's demands. The data encryption and decryption system has the following functional requirements:

- Functional Requirement 1:
  Description: Entering data
  Input: Enter the data which you want to encrypt
  Output: Data is in supported format

- Functional Requirement 2:
  Description: Level of security
  Input: Selection of security i.e. high, low, medium
  Output: Security Level Selected

- Functional Requirement 3:
  Description: Applying Algorithms for encryption
  Input: Different Algorithms for encryption
  Output: Data Encrypted

- Functional Requirement 4:
  Description Decryption
  Input: Applying appropriate algorithm
  Output: Data Decrypted

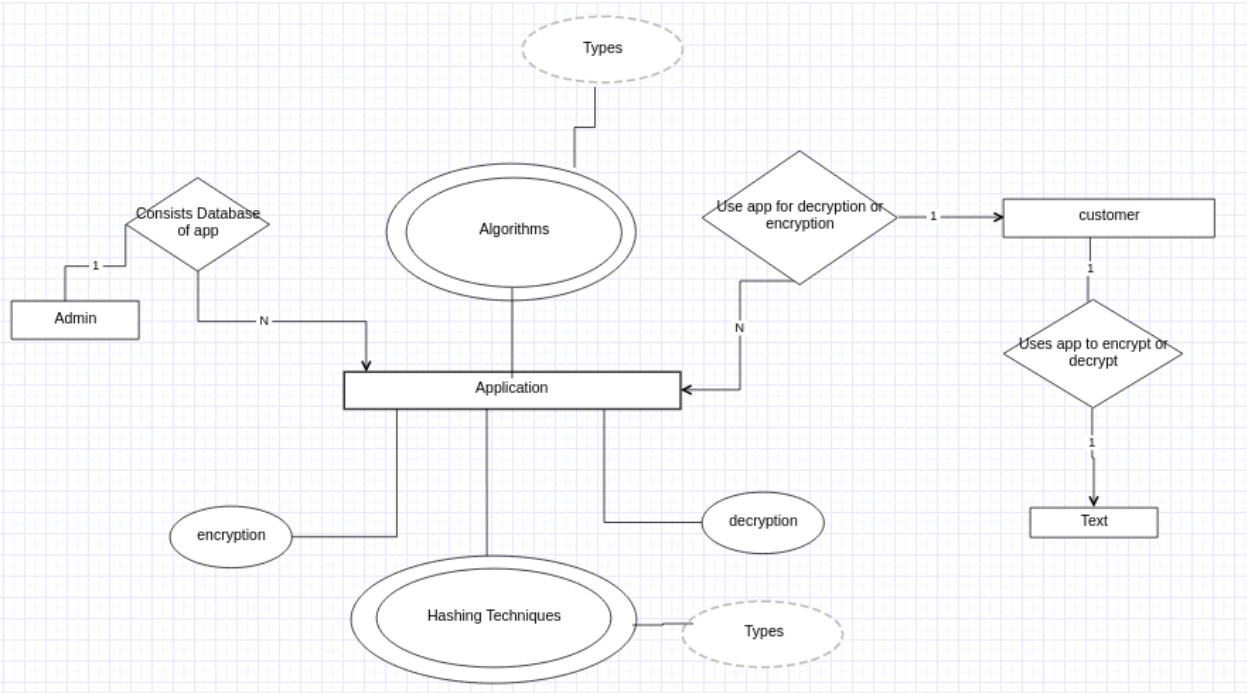
2.3 Non-Functional Requirements:

- **Security**: The tool should be secure i.e. data of one user should not be visible to other user.
- **Portability**: The tool should be able to work on every platform like Windows, Linux, Android.
- **Capacity**: The tool should be able to have good capacity so that it can take maximum amount of data in each time for encryption as well as decryption.
- **Performance**: There should not be addition of unwanted noise and moreover data should not be edited.
- **Reliability**: The system should not be crash under any circumstances such as user trying to load unsupported data.

3. DESIGN

3.1 System Design:

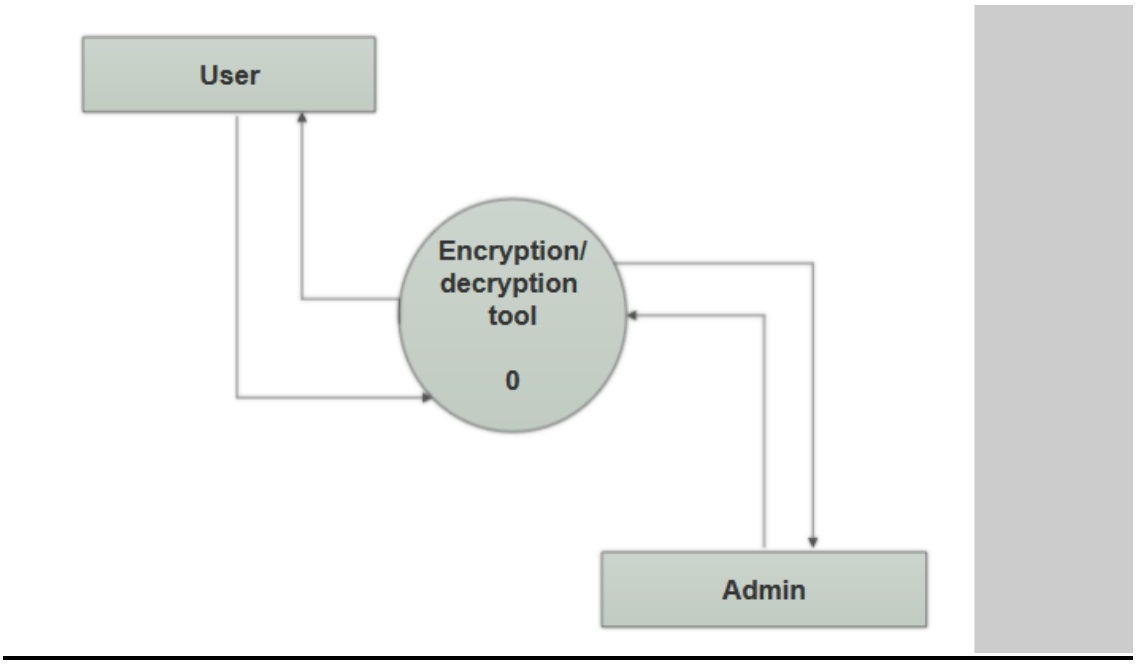
3.1.1 E-R Diagram:



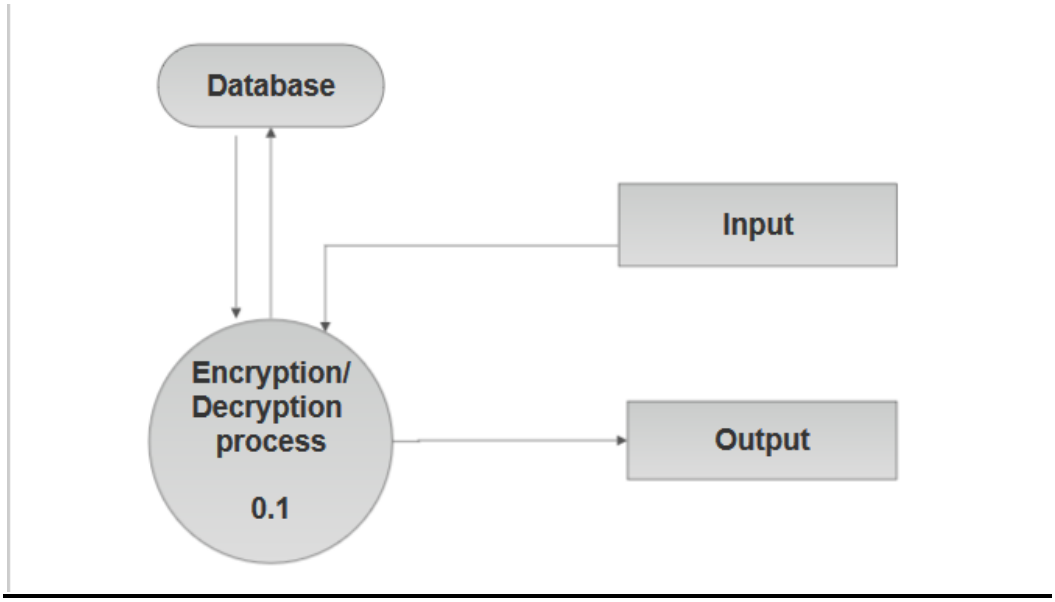
3.

3.1.2 Data Flow Diagram

Level 0

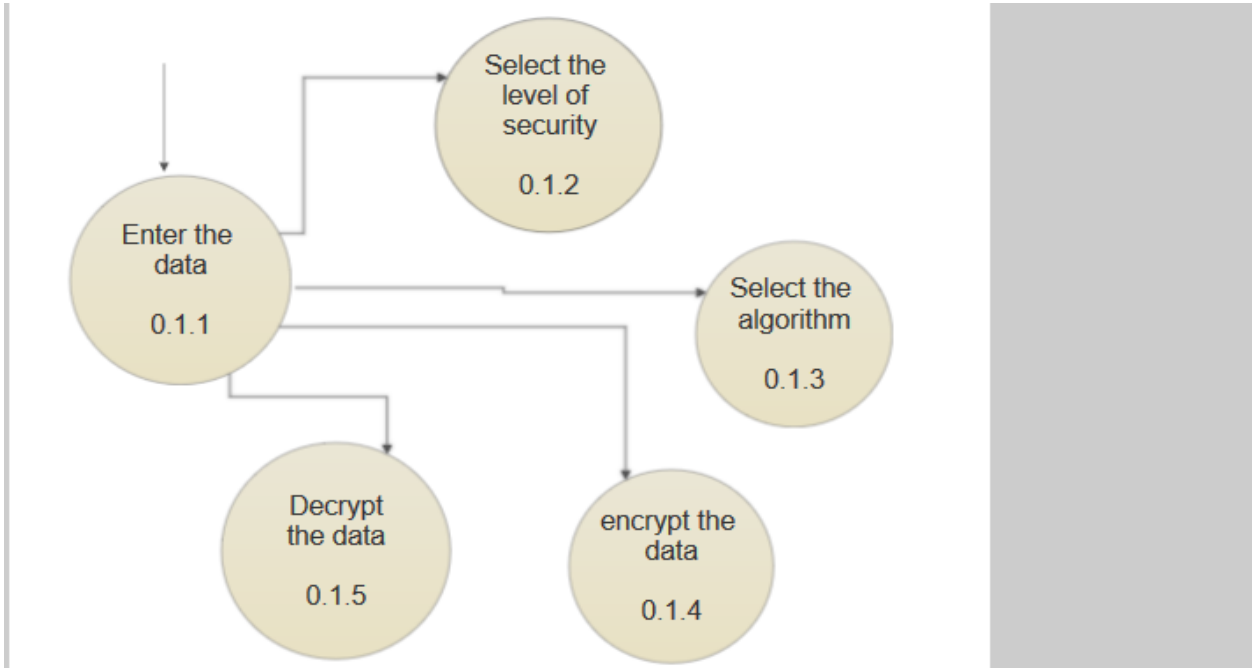


Level 1

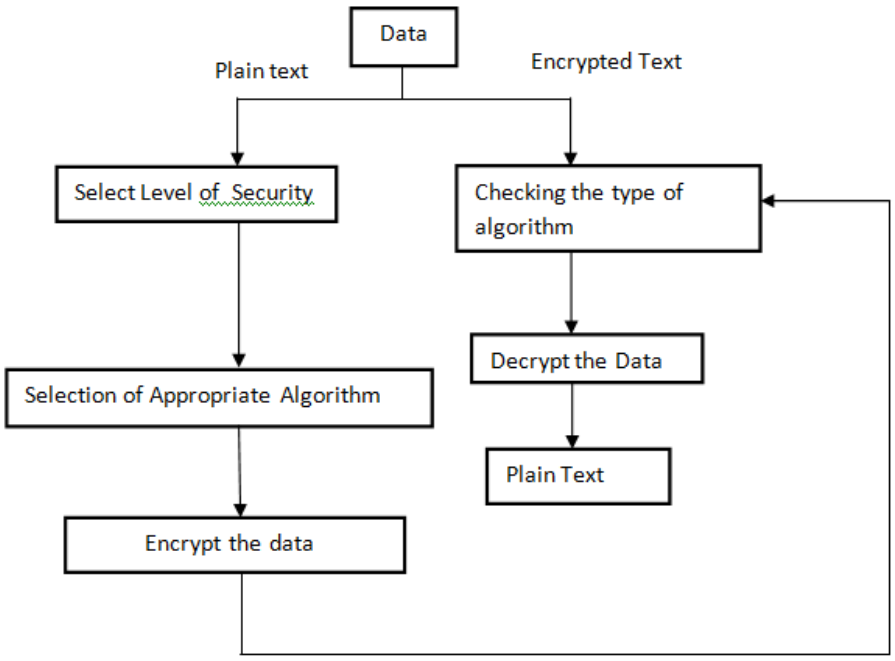


4.

Level 2



3.2 **Design:**

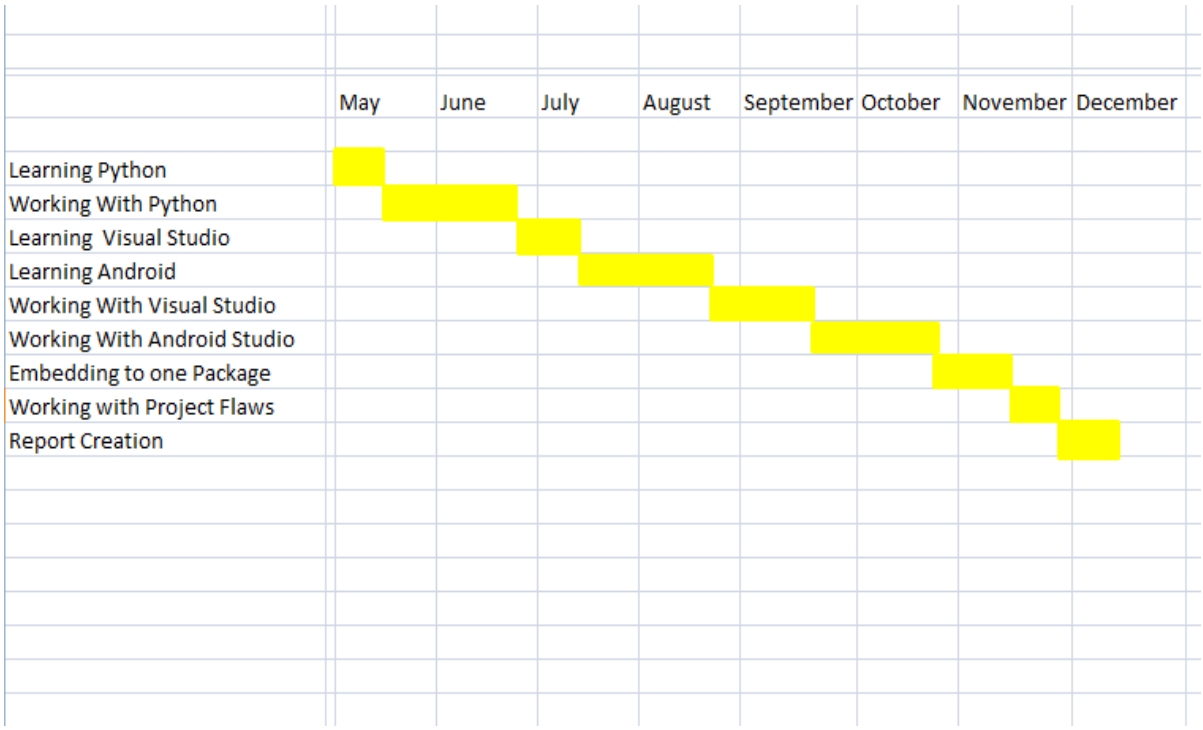


5.

4. <u>Scheduling and Estimates:</u> Estimation for the completion of the project is 5-6 months. Taking about the cost estimation is only the Data Cost.

Scheduling report for work we did till now…

Scheduling for work that we will do now for the completion of the project…



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