**3.3 Prototype Level Design**

Since we have followed evolutionary prototyping method in developing our app, the system development happens in increments.Each prototype level design describes the incremental process followed in that phase of development.

**3.3.1 Prototype : 1**

When the player (Alex) gets to the first door, he encounters Dhaka. This level is used to make the player get acquainted to the game. He should answer 3 different types of questions to open the 1st Mystery Door.

This section contains the 1st phase of the app development. Features implemented during this phase were:

* Gameplay till level 2.
* Questions were based on General Knowledge, Visual question and tricky riddle
* Editing of images for the characters in the story line

**Algorithms for Gameplay**

ALGORITHM: menu\_page()

//INPUT the buttons clicked (PLAY, EXIT)

//OUTPUT proper navigation of xaml pages corresponding to those buttons

Begin

If(button is assigned to the right xaml page)

Introductory page is displayed;

else

error;

End

**Algorithm for the introductory page**

ALGORITHM: intro\_page()

//INPUT the START button

//OUTPUT the motion of the images begin to give an introduction to the game

Begin

If(button-clicked)

Start the motion of the image and start the introduction;

else

no motion of the images;

end

**Algorithm for the game levels**

ALGORITHM: level\_one\_two()

//INPUT the correct answers and the CONTINUE button

//OUTPUT go to the next level

Begin

If(CONTINUE is clicked)

{

Go to the first level of the game;

Display the number of attempts;

Display the questions;

{

If(answers are right)

{Notify the user;

Go to the next question/level;}

Else

{Notify the user about the wrong answer;

Decrement an attempt;}

} }

Else

Restart the game from the first level;

end

**3.3.2 Prototype: 2**

When the player reaches the 3rd door, the level of difficulty increases. The player is provided a time constraint and the use of password. The player is provided with a different set of questions, through which he can unveil the password, the password revealed will be used to unlock the 3rd door.

This section contains the 2nd phase of the app development. Features implemented during this phase were:

* Creation of level 3, 4 and 5
* Introducing the time-constraint in 3rd, 4th and 5th level.
* Introducing the concept of “password”.

**Algorithm for creation of level 3, 4 and 5**

ALGORITHM: rest\_levels ()

//INPUT the correct answers and the CONTINUE button

//OUTPUT continued to the next level and at the end a message to display

Begin

If(CONTINUE is clicked)

{

Go to the third level of the game;

Display the number of attempts;

Display the questions;

{

If(answers are right)

{Notify the user;

Go to the next question/level;}

Else

{Notify the user about the wrong answer;

Decrement an attempt;}

} }

Else

Restart the game from the 3rd level;

end

**Algorithm for time-constraint**

ALGORITHM: time ()

//INPUT

//OUTPUT

Begin

{ I dnt knw this

}

End

**Algorithm for password generation**

ALGORITHM: password ()

//INPUT three correct answers

//OUTPUT 2 letters of the password are revealed after answering one question

Begin

For ( ques=3 ques<4 ques++)

Reveal 2 letters;

end

**3.3.3 Prototype: 3**

This section contains the 3rd phase of the app development. Features implemented during this phase were:

* Introducing the concept of “life” in 3rd, 4th and 5th level.
* Concept of “game over”.

**Algorithm for life concept**

ALGORITHM: life ()

//INPUT when the user completes a level

//OUTPUT Increase in life i.e. displays a heart symbol at the top of the screen.

Begin

If (correct answer && 3 or 4 level is crossed)

Increment In life;

Else If (user loses 3 attempts)

Decrement a life;

Else {}

end

**Algorithm for game over concept**

ALGORITHM: game\_over ()

//INPUT I don’t knw this part

//OUTPUT

Begin

If (time exceeds the constraint || the lives are lost)

Display game over;

Display the button to RESTART and EXIT ;

Else

Continue the game;

Navigate the control to the last page;

end