ABSTRACT
A user friendly interface by Cr is constructed on showing the behavior of resulted DNA molecules. Up to two stages DNA splicing system, this system works based on the developed mathematical theorems by using Yusof-Goode (Y-G) approach. As a new innovation in DNA molecular, this system is able to predict the persistency and permanence of the DNA splicing system. On the biological side, this software replaced wet-lab, which optimize time and money.

INTRODUCTION
Deoxynucleibonic acid (DNA) is a molecule constructing from nucleotides. Nucleotides consist of three main parts: nitrogenous bases (adenine, guanine, cytosine and thymine), deoxyribose sugar and phosphate group.

The four bases found on DNA are adenine (A) guanine (G), cytosine (C) and thymine (T). There are two hydrogen bond between adenine and thymine and three hydrogen bond between guanine and cytosine. In the other word, adenine is only paired with thymine and guanine is paired by cytosine and vice-versa. This rule of pairing is written as [A/T] [G/C] and [T/A].

The structure of DNA is like a double helix, with sugar-phosphate (backbone) is on the outside and the bases pairs are on the inside of the double helix (Weaver, 2005).

Following the Watson-Crick base-pairing rules, and since the two strands of DNA are antiparallel, the double-stranded DNA looks like:

\[ \text{5'...CGAGCTCG...3'} \]
\[ \text{3'..GCTGAGC..} \]

A restriction enzyme is an enzyme that recognizes specific DNA sequence usually 4-6 base pair in length and then cut it in a particular manner (sticky ends or blunt ends). An important characteristic of sticky ends is that those produced from different molecules by the same enzyme are complementary. Then, fragments of DNA re-join with their complementary ends by ligase and generate new DNA molecules (Walker and Rapley, 2009).

RESULTS
This program, shows the persistency and permanency of DNA splicing system based on the following mathematical theorems:

\[ (a,b,c,d) \in N^4 \]

Definition 1: (Yusof, 2012) Yusof-Goode Splicing system
\[ S = (A, I, R) \]

Let \( S = (A, I, R) \) be a splicing system. Then \( S \) is persistent if for each pair of strings \( ucvdf \) and \( vdfy \), in \( A^* \) with \( \{c, x, d\} \) patterns of the same hands: if \( y \) is a sub segment of \( ucvdf \) (respectively \( vdfy \)) then this same sub segment \( y \) of \( ucvdf \) occurs an occurrence of a crossing of a site in \( ucvdf \).

Definition 2: (Gatterdam, 1989) Permanent
\[ S = (A, I, R) \]

Let \( S = (A, I, R) \) be a splicing system. Then \( S \) is permanent if for each pair of strings \( ucvdf \) and \( vdfy \), in \( A^* \) with \( \{c, x, d\} \) patterns of the same hands: if \( y \) is a sub segment of \( ucvdf \) (respectively \( vdfy \)) that is crossing of a site in \( ucvdf \) (respectively \( vdfy \)) then this same sub segment \( y \) of \( ucvdf \) is an occurrence of a crossing of a site in \( ucvdf \).

Definition 3: (Yusof, 2012) Palindromic
\[ (a,b,c,d) \in N^4 \]

A string \( I \) of double stranded deoxynucleibonic acid (dsDNA) is said to be palindromic if the sequence from the left side of the upper single strand is equal with the sequence from the right side of the lower single strand.

CONCLUSION
As a conclusion, this system works on predicting the persistency and permanency of DNA splicing system which benefits to certain organization such as: NEB.

REFERENCES