Republic of the Philippines

**BOHOL ISLAND STATE UNIVERSITY**

**MAIN CAMPUS**

**COLLEGE OF ENGINEERING AND ARCHITECTURE**

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*Vision: A premiere S&T university for the formation of world class and virtuous human resource for sustainable development in Bohol and the Country.*

*Mission: BISU is committed to provide quality higher education in the arts and sciences, as well as in the professional and technological fields: undertake research and development, and extension services for the sustainable development of Bohol and the country.*

NAME: ELIJAH JONES QUIÑAL SUBJECT: CpE 412

YR/SEC: BSCPE 4 INSTRUCTOR: ENGR. MAX ANGELO PERIN

ID NO.:972310

**PROGRAMMING ASSIGNMENT #0-M**

c. L= {w ϵ {a,b}\* | w contains at least 5 occurences of **b**}

**a,b**

**b**

**b**

**b**

**b**

**a**

**a**

**a**

**a**

**a**

|  |  |  |
| --- | --- | --- |
| δ | a | b |
| 0 | 0 | 1 |
| 1 | 1 | 2 |
| 2 | 2 | 3 |
| 3 | 3 | 4 |
| 4 | 4 | 5 |
| 5 | 5 | 5 |

M= {q0,q1,q2,q3,q4,q5}, {a,b}, δ, {q0}, {q5}

**Deterministic Finite Automata (DFA)**

**CODE:**

|  |
| --- |
|  |

//972310

#include<stdio.h>

#include<conio.h>

#include<string.h>

int main()

{

int flag=0,flag2=0,i,len;

char str[20];

printf("Enter String:\n");

gets(str);

len=strlen(str);

for(i=0;i<len;i++)

{

if(str[i]=='a'&&str[i+1]=='a')

{

flag++;

}

if(str[i]=='b'&&str[i+1]=='b')

{

flag2++;

}

if(flag>0&&flag2>0)

{

printf("\nValid");

return 0;

}

}

printf("\nInvalid");

return 0;

}