

Department of Computer Science and Engineering

**Course Code :** CSE-452

**Course Title :** Neural Network & Fuzzy Logic Lab.

**Report No :** 02.

**Report Name :** Union and Intersection of Two Fuzzy sets.

**Performance Date :** 6th Feb 2016.

**Submission Date :** 20th Feb 2016.

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**DEPT : CSE**

**YEAR : 2016**

**SEM. :** **7th**

**REMARKS**

**Source Code:**

#include<stdio.h>

main()

{

float x[20],y[20],z[20];

int n,i,c;

printf("How many elements: ");

scanf("%d",&n);

printf("\n\nSet 1 Elements:\n");

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

{

printf("Element %d: ",i+1);

scanf("%f",&x[i]);

}

printf("\n\nSet 2 Elements:\n");

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

{

printf("Element %d: ",i+1);

scanf("%f",&y[i]);

}

printf("\nSET A={");

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

{

printf("(X%d,%f)}",i+1,x[i]);

}

printf("\nSET B={");

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

{

printf("(X%d,%f)}",i+1,y[i]);

}

A:

printf("\n\npls select 1 for union and 2 for intersection::\t");

scanf("%d",&c);

switch(c)

{

case 1:

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

{

if(x[i]<y[i])

z[i]=y[i];

else

z[i]=x[i];

}

printf("\n\nUnion of A and B: \n\t\{");

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

{

printf("(X%d, %.2f)",i+1,z[i]);

if(i==n-1)

continue;

else

printf(", ");

}

printf("}\n\n");

goto A;

case 2:

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

{

if(x[i]>y[i])

z[i]=y[i];

else

z[i]=x[i];

}

printf("\n\nIntersection of A and B: \n\t\{");

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

{

printf("(X%d, %.2f)",i+1,z[i]);

if(i==n-1)

continue;

else

printf(", ");

}

printf("}\n\n");

go to A:

return 0;

}

}

**Input:**

How many elements: 3

Set 1 Elements:

Element 1: .4

Element 2: .5

Element 3: .9

Set 2 Elements:

Element 1: .2

Element 2: .5

Element 3: .7

**OUTPUT:**

SET A={(X1, 0.400000)}(X2,0.500000)}(X3, 0.900000)}

SET B={(X1,0.200000)}(X2,0.500000)}(X3,0.700000)}

Pls select 1 for union and 2 for intersection:: 1

Union of A and B:

{(X1, 0.40), (X2, 0.50), (X3, 0.90)}

Pls select 1 for union and 2 for intersection:: 2

Intersection of A and B:

{(X1, 0.20), (X2, 0.50), (X3, 0.70)}

Process returned 0 (0x0) execution time : 21.351 s

Press any key to continue.