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| Lab Sheet 01 |
| Week 01 |

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| IT21204098\_Mendis D.D.S  8/2/2022 |

**Exercise 1**

#include <stdio.h>

int main()

{

int mark1=0, mark2=0, mark3=0, total=0, i;

float average=0;

for(i=1; i<=3; ++i){

printf("Enter the student %d mark one : ",i);

scanf("%d", &mark1);

printf("Enter the student %d mark two : ",i);

scanf("%d", &mark2);

printf("Enter the student %d mark three : ",i);

scanf("%d", &mark3);

total = mark1 + mark2 + mark3;

average = total / 3.0;

printf("\nAverage mark of student %d : %.2f\n", i, average);

if(average>60){

printf("You are selected to the software engineering degree program\n");

}

else{

printf("You are not selected to the software engineering degree program\n");

}

printf("\n");

total = 0; average = 0;

}

return 0;

}

**Exercise 2**

#include <stdio.h>

int square(int x);

int cube(int x);

int main(void)

{

int i;

printf("x\tsquare\tcube\n");

for(i=1; i<=10; ++i)

{

printf("%d\t%d\t%d",i, square(i), cube(i));

printf("\n");

}

}

int square(int x)

{

int ans1;

ans1= x \* x;

return ans1;

}

int cube(int x)

{

int ans2;

ans2= x\* x\* x;

return ans2;

}

**Exercise 3**

#include <stdio.h>

int area (int length, int width);

int main(void)

{

int lengthYard=30, widthYard=20, lengthHouse=15, widthHouse=10, areaYard=0, areaHouse=0, areaLawn=0;

areaYard = area(lengthYard, widthYard);

areaHouse = area(lengthHouse, widthHouse);

areaLawn = areaYard - areaHouse;

printf("Lawn area : %d", areaLawn);

return 0;

}

area (int length, int width)

{

int Area;

Area = length \* width;

return Area;

}

**Exercise 4**

#include <stdio.h>

float findCA\_1(int a1\_mark);

float findCA\_2(int a2\_mark);

int main(void)

{

int a1\_mark[5]={0};

int a2\_mark[5]={0};

int i;

float CA1[5]={0};

float CA2[5]={0};

for(i=1; i<=5; ++i){

printf("Enter the mark of assignment one of student %d :", i);

scanf("%d", &a1\_mark[i]);

printf("Enter the mark of assignment two of student %d :", i);

scanf("%d", &a2\_mark[i]);

printf("\n");

CA1[i] = findCA\_1(a1\_mark[i]);

CA2[i] = findCA\_2(a2\_mark[i]);

}

printf("\nstudent\tmark1\tmark2\tCA\_1\tCA\_2\n");

for(i=1; i<=5; ++i){

printf("%d\t%d\t%d\t%.2f\t%.2f\n", i, a1\_mark[i], a2\_mark[i], CA1[i], CA2[i]);

}

return 0;

}

float findCA\_1(int a1\_mark)

{

int i;

float CA1;

CA1 = a1\_mark \* (20.0/100);

return CA1;

}

float findCA\_2(int a2\_mark)

{

float CA2;

int i;

CA2= a2\_mark \* (30.0/100);

return CA2;

}