**IT21194962**

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**Malabe group 1.2 weekdays**

**Tutorial 9**

**Week12**

**Exercise 1**

//IT21194962 Sachintha Hasaranga

#include<stdio.h>

#include<string.h>

#define size 30

int main(){ //main function execute

char palindrome[size]; //array declaration

int i,j,length; //variables for counting

int word=0;

printf("Enter word "); //prompt

scanf("%s",palindrome); //read an integer for palindrome variable

length=strlen(palindrome); //assign array lenth to length variable

j=length-1; //assign length variable -1 to j variable for count

for(i=0;i<length/2;i++){ //check word lenth less than lenth/2

if(palindrome[i]==palindrome[j]){ //check equal word count

word++;

j--; //decrement j by 1

}

} //end if loop

if(word==length/2){

printf("%s is a palindrome",palindrome); //if that word is palindrome print it is a palindrome

}//end if loop

else{

printf("%s not a palindrome",palindrome); //if that word is not palindrome print it is not a palindrome

}//end else loop

return 0;

}//end main function

**Exercise 2**

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#include<stdio.h>

#define row 4

#define columns 4

int main(){ //execute main function begins

int array1[row][columns]={5,7,8,10,9,3,0,6,8,1,9,2,4,7,2,1}; //array1 declaration

int array2[row][columns]={2,2,1,3,8,1,3,1,1,2,2,4,3,1,1,2}; //array2 declaration

int total[row][columns]={0}; //total array declaration

int i,j; //variable for counting

for(i=0;i<row;i++){

for(j=0;j<columns;j++){

total[i][j]=array1[i][j]+array2[i][j]; //assing array1+array2 to total array

}//end for

}//end for

for(i=0;i<row;i++){

for(j=0;j<columns;j++){

printf("%4d",total[i][j]); //print total array

}printf("\n"); //new line

}

return 0;

}//end main function

**Exercise 3**

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#include<stdio.h>

#define salespeople 4

#define product 5

int main(){

float sales[salespeople][product]={0}; //sales array declaration

int i,j; //variable for count

int number,pnum; //variable for read user input

float total; //variable for calculate total

//assign user input to sales array

for (i=0;i<salespeople;i++){

printf("enter sales person number(1-4) : "); //prompt

scanf("%d",&number); //read an integer for number variable

for(j=0;j<product;j++){

printf("enter product number(1-5) : "); //prompt

scanf("%d",&pnum); //read an integer for pnum variable

printf("enter total dollar value of product : "); //prompt

scanf("%f",&sales[number-1][pnum-1]); //read a float for sales array

}printf("\n");//new line

}//end for loop

//print total of each froduct

for(i=0;i<product;i++){

total=0; //assign total to 0

for(j=0;j<salespeople;j++){

total=total+sales[j][i]; //calculate total

}

printf("product %d total is %.2f\n",i+1,total); //print total values of each product

}//end for loop

return 0;

}//end main function