Q.1. Write a program to read user input and store it in an array. Print array values along with

addresses

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| **Q. Write a program to read user input and store it in an array. Print array values along with**  **addresses**  #include<stdio.h>  int main()  {  int array[100],index,length;  printf("\n Enter the array length:");  scanf("%d",&length);  /\*\*\*\*\*\*\*\*\*\*\*\*\*\* User input \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  for(index=0;index<length;index++)  {  printf(" array[%d]=",index);  scanf("%d",&array[index]);  }  printf("\n");  /\*\*\*\*\*\*\*\*\*\*\*\*\*\* Printing with address \*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*\*/  for(index=0;index<length;index++)  {  printf(" array[%d]=%d address=%p\n",index,array[index],&array[index]);  }  return 0;  }  **output:**  Enter the array length:5  array[0]=1  array[1]=2  array[2]=3  array[3]=4  array[4]=5  array[0]=1 address=0x7ffd48b8fdd0  array[1]=2 address=0x7ffd48b8fdd4  array[2]=3 address=0x7ffd48b8fdd8  array[3]=4 address=0x7ffd48b8fddc  array[4]=5 address=0x7ffd48b8fde0 |
| **Q2. Write a program for find largest and smallest element in an given array**  #include<stdio.h>  int main()  {  int array[100],index=-1,index1,small,large,length;  printf("\n Enetr array elements:\n");  do  {  index++;  printf("array[%d]=",index);  scanf("%d",&array[index]);  } while(array[index]!=0);    small=large=array[0];  for(index1=1;index1<index;index1++)  {  if(array[index1]>large)  large=array[index1];  if(array[index1]<small)  small=array[index1];  }  printf("\n smallest array element = %d \n laegest array element = %d\n",small,large);  return 0;  }  **Output:**  Enetr array elements:  array[0]=1  array[1]=2  array[2]=3  array[3]=4  array[4]=5  array[5]=0  smallest array element = 1  laegest array element = 5 |
| **Q16. Write a program to insert an element into an array. Accept index from user.**  #include<stdio.h>  int main()  {  int array[100],index,length,element,user\_index;  printf("\n Enter the length:");  scanf("%d",&length);  printf("\n Enter array element:\n");  for(index=0;index<length;index++)  {  printf("array[%d]=",index);  scanf("%d",&array[index]);  }    printf("\n Enetr the array index to enter element:");  scanf("%d",&user\_index);  printf("\n Enter the element:");  scanf("%d",&element);  for(index=length-1;index>=user\_index-1;index--)  {  array[index+1]=array[index];  }  array[user\_index-1]=element;  length++;    printf("\n After insertion:\n");    for(index=0;index<length;index++)  {  printf("array[%d]=%d\n",index,array[index]);  }  }  Output:  Enter the length:5  Enter array element:  array[0]=1  array[1]=2  array[2]=3  array[3]=4  array[4]=5  Enetr the array index to enter element:2  Enter the element:12  After insertion:  array[0]=1  array[1]=12  array[2]=2  array[3]=3  array[4]=4  array[5]=5 |
| **Q.17 Write a program to remove an element from an array. Accept index from user.**  #include<stdio.h>  int main()  {  int array[100],length,element,index,index1,flag=0;    printf("\n Enter array length:");  scanf("%d",&length);  printf("\n Enter the array element:\n");  for(index=0;index<length;index++)  {  printf("array[%d]=",index);  scanf("%d",&array[index]);  }  printf("\n Enter the element to delete:");  scanf("%d",&element);  for(index=0;index<length;index++)  {  if(array[index]==element)  {  flag=1;  for(index1=index;index1<length;index1++)  {  array[index1]=array[index1+1];  }  length--;  }  }  if (flag==0)  printf("\n No element found \n");  else  {  printf("\n After deleting:\n");    for(index=0;index<length;index++)  {  printf("array[%d]=%d\n",index,array[index]);  }  }  }  **Output:**  Enter array length:5  Enter the array element:  array[0]=1  array[1]=2  array[2]=3  array[3]=4  array[4]=5  Enter the element to delete:3  After deleting:  array[0]=1  array[1]=2  array[2]=4  array[3]=5 |
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