Assignment 7

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#include <stdio.h>
int main()
{

   // Enter the array
   // printf("Enter the sizeof arr: ");
   // int size ;
   // scanf("%d", &size);

   // int arr[size];
   // for (int i = 0; i < size; i++)
   // {
   //    printf("Enter the no at index of %d: ", i);
   //    scanf("%d \n", &arr[i]);
   // }

   // for (int i = 0; i < size; i++)
   // {
   //    printf("%d ", arr[i]);
   // }

   int arr[8] = {6, 2, 7, 4, 9, 13, 5, 8};

   // // Print Arrary
   printf("Arrary: ");
   for (int i = 0; i < 8; i++)
   {
      printf("%d ", arr[i]);
   }
   printf("\n");
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// Max no in Arrary
int max;
int min;
for (int i = 0; i < 8; i++)
{
   if (max < arr[i])
   {
      max = arr[i];
   } else if (min > arr[i]){
      min = arr[i];
   }
}

printf("Max No: %d Min : %d\n", max, min);

// Min no in Arrary
// int min = arr[0];
for (int i = 0; i < 8; i++)
{
   if (min > arr[i])
   {
      min = arr[i];
   }
}

printf("Min No: %d \n", min);

// sum of elements in arrary

int sum = 0;
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for (int i = 0; i < 8; i++)
{
   sum += arr[i];
}
printf("Sum of all elements in arrary is : %d \n", sum);

// Find even odd no in arrary
for (int i = 0; i < 8; i++)
{
   if (arr[i] % 2 == 0)
   {
      printf("Even : %d \n", arr[i]);
   }
   else
   {
      printf("Odd : %d\n", arr[i]);
   }
}

// Print alternate elements in arrary

printf("Even Position \n");
for (int i = 0; i < 8; i++)
{
   if (i % 2 == 0)
   {
      printf("Positon %d : %d \n", i, arr[i]);
   }
}

printf("Odd Position \n");
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for (int i = 0; i < 8; i++)
{
   if (i % 2 == 1)
   {
      printf("Positon %d : %d \n", i, arr[i]);
   }
}

// Accept arrary and print only prime numbers of arrary.

// int arr[8] = {6, 2, 7, 4, 9, 13, 5, 8};

printf("Prime: ");
for (int i = 0; i < 8; i++)
{
   int no = arr[i];
   int flag = 0;

   for (int j = 2; j < no ; j++)
   {
      if (no % j == 0)
      {
         flag = 1;
         break;
      }
   }

   if (flag == 0)
   {
      printf(" %d ", no);
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   }

}

// take a arrary and sum in third arrary
int arr1[5] = {1, 2, 3, 4, 5};
int arr2[5] = {10, 20, 30, 40, 50};

int arrsum[5];

for (int i = 0; i < 5; i++)
{
   arrsum[i] = arr1[i] + arr2[1];
}
printf("sum of the arr is : ");
for (int i = 0; i < 5; i++)
{
   printf("%d ", arrsum[i]);
}

// Mearg two arrarys
// int arr1[5] = {1, 2, 3, 4, 5};
// int arr2[5] = {10, 20, 30, 40, 50};

int mearg[10];
for (int i = 0; i < 10; i++)
{
   mearg[i] = arr1[i];
}
for (int i = 0; i < 5; i++)
{
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    mearg[i + 5] = arr2[i];
}
for (int i = 0; i < 10; i++)
{
    printf("%d \n", mearg[i]);
}



// Revers the given arrary

// int arr[8] = {6, 2, 7, 4, 9, 13, 5, 8};

for (int i = 0; i < 8; i++)
{
    printf("%d ", arr[i]);
}
printf("\n ");
int temp;
for (int i = 0; i < 8/2; i++)
{
    // printf("%d ", arr[i]);
    // for (int j = i+7; j >= i; j--)
    // {
        // printf("%d ", arr[i]);
        temp = arr[i];
        arr[i] = arr[7-i];
        arr[7-i] = temp;
    // }
}
 for (int i = 0; i < 8; i++)
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    {
        printf("%d ", arr[i]);
    }



    // Sort the arrary
    // int arr[8] = {6, 2, 7, 4, 9, 13, 5, 8};

    // int temp;

    for (int i = 0; i < 8; i++)
    {
        /* code */
        for (int j = i + 1; j < 8; j++)
        {
            if (arr[i] > arr[j])
            {
                temp = arr[i];
                arr[i] = arr[j];
                arr[j] = temp;
            }
        }
    }

    for (int i = 0; i < 8; i++)
    {
        printf("%d ", arr[i]);
    }

}
```