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Soal 1 - 3

```csharp
namespace BankIndonesia;
using System.Linq;
class Program
{
    static void Main(string[] args)
    {
        Soal1(15);
        Console.WriteLine();
        Soal2a(5);
        Console.WriteLine();
        Soal2b(5);
        Console.WriteLine();
        Soal2c(5);
        Console.WriteLine();
        Soal2d(5);
        Console.WriteLine();
        var sortedN = Soal3([12, 9, 13, 6, 10, 4, 7, 2]);
        Console.WriteLine(string.Join(" ", sortedN));
        Console.WriteLine();
    }

    static void Soal1(int n)
    {
        for (int i = 1; i <= n; i++)
        {
            if (i % 3 == 0)
            {
                Console.Write("OK ");
            }
            else if (i % 4 == 0)
            {
                Console.Write("YES ");
            }
            else if (i % 3 == 0 && i % 4 == 0)
            {
                Console.Write("OKYES ");
            }
            else
```

```csharp
            {
                Console.Write(i + " ");
            }
        }
    }

    static void Soal2a(int n)
    {
        for (int i = 1; i <= n; i++)
        {
            for (int j = 1; j <= i; j++)
            {
                Console.Write(i);
            }
            Console.WriteLine();
        }
    }

    static void Soal2b(int n)
    {
        for (int i = 1; i <= n; i++)
        {
            for (int j = i; j >= 1; j--)
            {
                Console.Write(j);
            }
            Console.WriteLine();
        }
    }

    static void Soal2c(int n)
    {
        var lists = new List<List<int>>();

        for (int i = 1; i <= n; i++)
        {
            var list = new List<int>();

            for (int j = 1; j <= i; j++)
            {
                if (i == 1)
                {
                    list.Add(j);
                    Console.Write(list[j - 1]);
                }
                else
                {
                    if (j == 1)
                    {
                        list.Add(lists[^1][^1] + 1);
                    }
                    else
                    {
                        if (list.Contains(5))
```

```csharp
                    {
                        list.Add(list[^1] - 1);
                    }
                    else
                    {
                        list.Add(list[^1] + 1);
                    }
                }
                Console.Write(list[j - 1]);
            }
        }

        lists.Add(list);
        Console.WriteLine();
    }
}

static void Soal2d(int n)
{
    var lists = new List<List<int>>();
    for (int i = 1; i <= n; i++)
    {
        var list = new List<int>();
        // Console.WriteLine("i: " + i);
        // Console.WriteLine("Count: " + lists.Count);

        for (int j = 1; j <= n; j++)
        {
            if (i == 1)
            {
                if (j == 1)
                {
                    list.Add(j);
                }
                else
                {
                    if (list[^1] % 2 == 0)
                    {
                        list.Add(list[^1] + 1);
                    }
                    else
                    {
                        list.Add(list[^1] + 9);
                    }
                }
            }
            else
            {
                if (lists[0][j - 1] % 2 == 0)
                {
                    list.Add(lists[^1][j - 1] - 1);
                }
                else
                {
```

```csharp
                    list.Add(lists[^1][j - 1] + 1);
                }
            }
            Console.Write(list[j - 1] + " ");
        }
        lists.Add(list);
        Console.WriteLine();
    }
}

static List<int> Soal3(List<int> n)
{
    var filteredN = new List<int>();

    foreach (var num in n)
    {
        if (num % 3 != 0)
        {
            filteredN.Add(num);
        }
    }

    // sort filteredN ascending
    for (int i = 0; i < filteredN.Count - 1; i++)
    {
        int minIndex = i;
        for (int j = i + 1; j < filteredN.Count; j++)
        {
            if (filteredN[j] < filteredN[minIndex])
            {
                minIndex = j;
            }
        }
        (filteredN[minIndex], filteredN[i]) = (filteredN[i],
filteredN[minIndex]);
    }

    return filteredN;
}
}
```

Soal No. 4

4a

```sql
-- a
SELECT * FROM barang WHERE harga > 10000 ORDER BY harga ASC;
```

4b

```sql
SELECT * FROM pelanggan WHERE nama LIKE '%g%' AND alamat = 'BANDUNG';
```

4c

```sql
SELECT trx.kode as KODE, trx.tanggal as TANGGAL, p.nama as NAMA_PELANGGAN,
b.nama as NAMA_BARANG,
    trx.jumlah_barang as JUMLAH_BARANG, b.harga as HARGA_SATUAN,
trx.jumlah_barang*b.harga as TOTAL
FROM transaksi trx
JOIN pelanggan p ON trx.kode_pelanggan = p.kode
JOIN barang b ON trx.kode_barang = b.kode
```

4d

```sql
SELECT p.nama as NAMA_PELANGGAN, SUM(trx.jumlah_barang) as JUMLAH,
SUM(trx.jumlah_barang*b.harga) as TOTAL
FROM transaksi trx
JOIN pelanggan p ON trx.kode_pelanggan = p.kode
JOIN barang b ON trx.kode_barang = b.kode
GROUP BY trx.kode_pelanggan
```