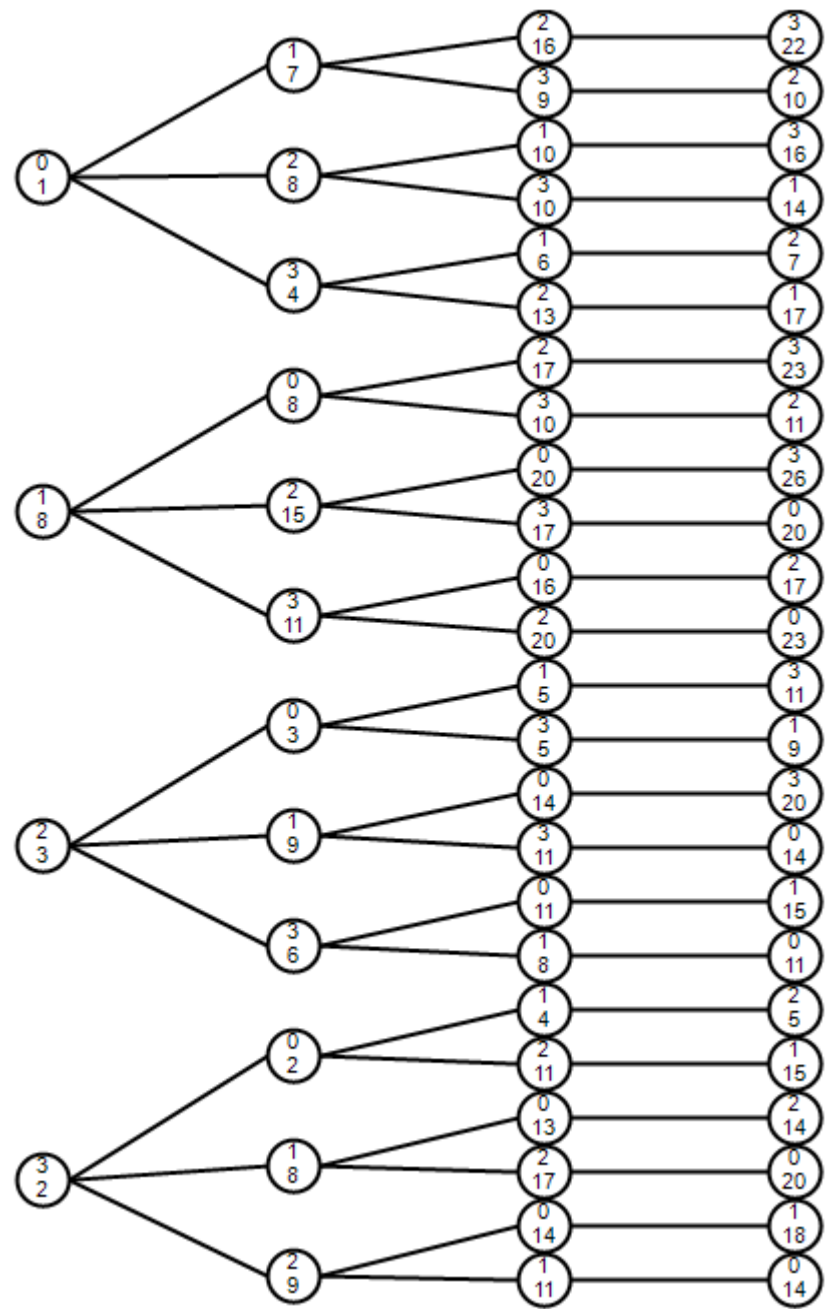
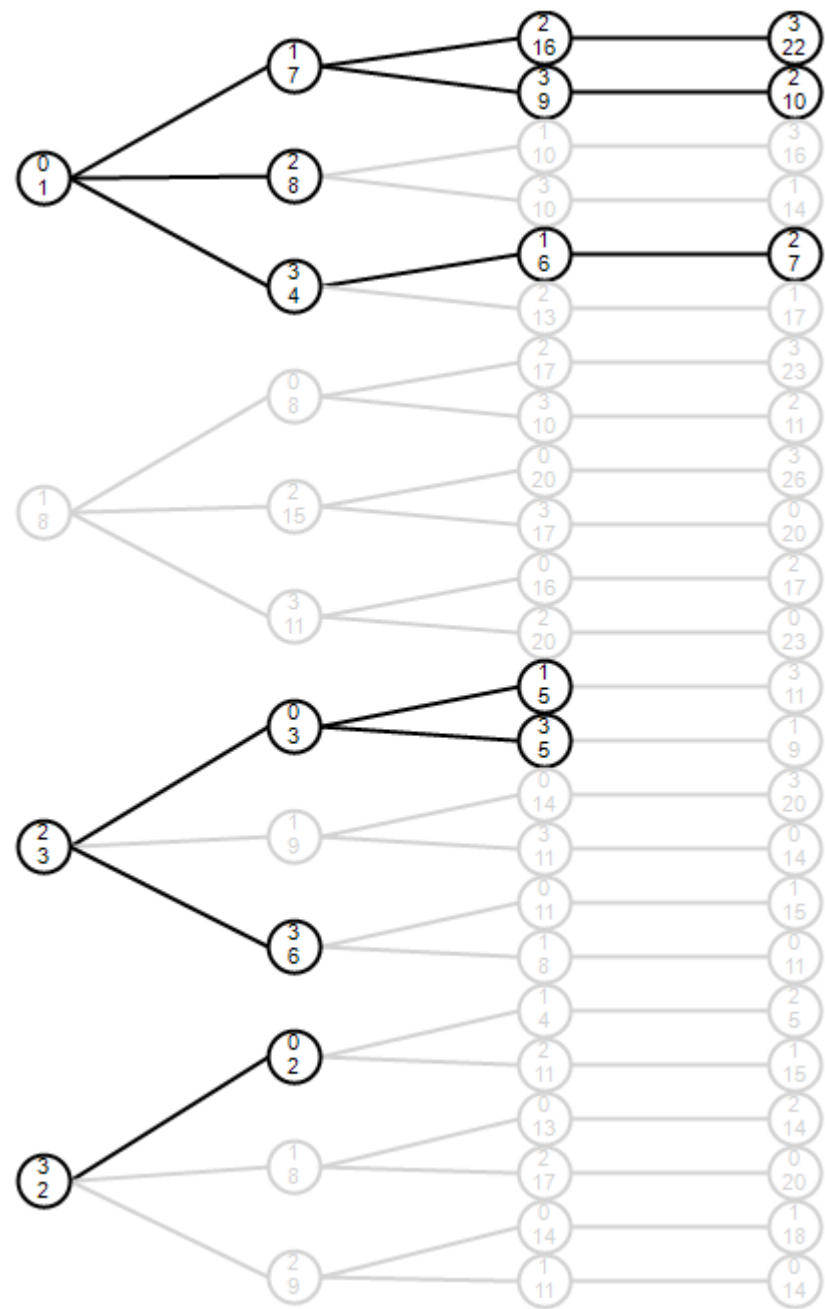


Задача

- Дадени са n машини и n задачи, като за всяка двойка машина-задача е наблюдавана ефективността (времето за изпълнение). Да се направи програма, определяща разпределението машина-задача, така че общата ефективност да е максимална.
- Да се използва B&B подход.

	1	2	3	4
A	9	2	7	5
B	10	4	3	7
C	5	8	1	8
D	7	6	9	4





```

public static void AssignmentBB(
    int[][] effectiveness,
    int worker,
    int[] assignment,
    int effectivenessAccumulated,
    ref int effectivenessUpperBound)
{
    if (worker == assignment.Length)
    {
        if (effectivenessUpperBound > effectivenessAccumulated)
            effectivenessUpperBound = effectivenessAccumulated;

        return;
    }

    for (int j = 0; j < assignment.Length; j++)
    {
        var assigned = false;
        for (int w = 0; w <= worker; w++)
            if(assignment[w] == j)
            {
                assigned = true;
                break;
            }
    }

```

```

    for (int j = 0; j < assignment.Length; j++)
    {
        var assigned = false;
        for (int w = 0; w <= worker; w++)
            if(assignment[w] == j)
            {
                assigned = true;
                break;
            }

        if (!assigned)
        {
            assignment[worker] = j;

            var effectivenessNew =
                effectivenessAccumulated +
                effectiveness[j][worker];

            if (effectivenessNew >= effectivenessUpperBound)
                continue;

            AssignmentBB(
                effectiveness,
                worker + 1,
                assignment,
                effectivenessNew,
                ref effectivenessUpperBound);

            assignment[worker] = -1;
        }
    }
}

```