**Exercise: Red-Black Trees**

This document defines the lab for ["Data Structures – Advanced (C#)" course @ Software University](https://softuni.bg/trainings/3420/data-structures-advanced-with-csharp-august-2021).

## Red-Black Tree

You are given class **RedBlackTree<T>** your task is to implement all the methods with missing implementation:

* void **Insert**(T element) – adds **new** **entry** to the tree
* int **Count()** – returns the **size** of the tree
* **RedBlackTree<T> Search(T element)** - search for an element and return the entire subtree
* void **DeleteMin**() – removes the **min** element by key in the tree. Throws **InvalidOperationException** if the tree is empty
* void **DeleteMax**() – removes the **max** element by key in the tree. Throws **InvalidOperationException** if the tree is empty
* void **Delete**(T element) – removes the specified element. Throws **InvalidOperationException** if the tree is empty
* void **EachInOrder**(Action<T> action) – Iterates the tree and executes the action in-order