Bevezetés a LaTeX-be

Negyedik alkalom

1. feladat - Tételkörnyezetek

1. Tétel. *Tehát tétel*

2. Tétel. *Heße mátrix*

Bizonyítás. ... □

1. Definíció. Tehát definíció

2. Definíció. Triviális

1. Lemma. *Tehát Lemma*

1. *Feladat.* Feladat

Megjegyzés. Megjegyzés

2. feladat - Verbatim (és saját float)

`LaTeX` LaTeX LaTeX

```
\begin{tet}
Tétel...
\end{tet}
```

```
\begin{lista}
Lista...
\end{lista}
```

Programkódok listája

3. feladat - Programkód

Former project from DBMS:

```
public class App {

    private static final String FILE = "REK.DAT";
    public static void main(String[] args) throws Exception {

        // Initializing the Repository array, containing the products I store in the binary file.
        Repository[] repos = {new Repository("Screw Warehouse",
                                             3,
                                             2,
                                             1,
                                new Product[]{
                                  new Product(
                                      "Lead-screw",
                                      12),
                                  new Product(
                                      "Wood-screw",
                                      10)}),
                                  new Repository("Fruit storage",
                                                 13,
                                                80,
                                                 0,
                                  new Product[]{(
                                  new Product(
                                      "Raspberry",
                                      20)})});

        // Writing the first Product to the binary file
        Repository.writeData(FILE, repos[0].getProducts()[0].toString(), 5);

        // Reading the first Product from the binary file
        System.out.println("Product:\n" + new String(Repository.readData(FILE, 1, 10000)));

        // Appending the second Product to the binary file
        System.out.println("\nContents after appending the second and the thids products:\n");
        Repository.appendData(FILE, "\n" + repos[0].getProducts()[1].toString());
        Repository.appendData(FILE, "\n" + repos[1].getProducts()[0].toString());

        // Reading the second Product from the binary file
        System.out.println(new String(Repository.readData(FILE, 1, 10000)));

        // Deleting the first Product from the binary file
        System.out.println("\nContents after deleting the first product:");
        Repository.deleteData(FILE, repos[0].getProducts()[0].toString());
        System.out.println(new String(Repository.readData(FILE, 1, 10000)));
    }
}
```

4. feladat - Pszeudokód

```
        def binary_search(arr, val, start, end):
        if start == end:
        if arr[start] > val:
        return start
        else:
        return start+1
        elif start > end:
        return start
        else:
        mid = (start+end)/2
        if arr[mid] < val:
        return binary_search(arr, val, mid+1, end)
        elif arr[mid] > val:
        return binary_search(arr, val, start, mid-1)
        else: # arr[mid] = val
        return mid

        def insertion_sort(arr):
        for i in xrange(1, len(arr)):
        val = arr[i]
        j = binary_search(arr, val, 0, i-1)
        arr = arr[:j] + [val] + arr[j:i] + arr[i+1:]
        return arr
```

$i \leftarrow 10$
if $i \geq 5$ **then**
    $i \leftarrow i - 1$
else
    if $i \leq 3$ **then**
        $i \leftarrow i + 2$
    end if
end if