Seminar 6
week 6 (1-5November 2021)

A. **Discussion of the implementation for the lab assignment A3.** Regarding the View part we discuss how it would be possible to call many times the execution of the same example.
B. **Discussion of the following IO classess usage:** FileReader, FileWriter, BufferedReader, BufferedWriter, StreamTokenizer, Scanner and PrintStream. Some code templates of using these classes are given below:

- **FileReader class example:**

```
try(FileReader fileReader = new FileReader("c:\\data\\text.txt")){
int data = fileReader.read();
     while(data != -1) { // read a char
       System.out.print((char) data));
       data = fileReader.read();
     }
}
```

- **FileWriter class example:**

```
try(FileWriter fileWriter = new FileWriter("data\\filewriter.txt",true)){
          //true –appends, false or nothing-overwrites
fileWriter.write("data 1");
fileWriter.write("data 2");
fileWriter.write("data 3");
}
```

- **BufferedReader class example:**

```
Reader reader = new FileReader("data.bin");
try(BufferedReader bufferedReader =new BufferedReader(reader)){
   String line = bufferedReader.readLine();
   while(line != null) {
      //do something with line

      line = bufferedReader.readLine();
   }
}
 or

br=new BufferedReader(new FileReader(numefis));
      String linie;
      while((linie=br.readLine())!=null){
         String[] elems=linie.split("[|]");
         if (elems.length<2){
            System.err.println("Linie invalida "+linie);
            continue;}
```

```
        //do something with the line
    }
```

- **BuferredWriter class example:**

```
FileWriter output = new FileWriter("data.bin");
try(BufferedWriter bufferedWriter = new BufferedWriter(output)){
   for(i=0;i<100;i++){
          bufferedWriter.write("Hello World");
          bufferedWriter.newLine();
          if(i%5==0)
             bufferedWriter.flush();
   }
}
```

- **StreamTokenizer class example:**

```
Reader reader = new FileReader("data.bin");
try(StreamTokenizer streamTokenizer = new StreamTokenizer(reader)){

   while(streamTokenizer.nextToken() != StreamTokenizer.TT_EOF){

      if(streamTokenizer.ttype == StreamTokenizer.TT_WORD) {
         System.out.println(streamTokenizer.sval);
      } else if(streamTokenizer.ttype == StreamTokenizer.TT_NUMBER) {
         System.out.println(streamTokenizer.nval);
      } else if(streamTokenizer.ttype == StreamTokenizer.TT_EOL) {
         System.out.println();
      }
   }
}
```

- **PrintWriter class example:**

```
        FileWriter  writer      = new FileWriter("report.txt");
        PrintWriter printWriter = new PrintWriter(writer);
        printWriter.print(true);
        printWriter.print((int) 123);
        printWriter.print((float) 123.456);
        intVar i=200;
        printWriter.printf("Text + data: %d", intVar);
        printWriter.close();
```

- **Scanner class examples:**

```
Scanner sc = new Scanner(new File("myNumbers"));
    while (sc.hasNextLong()) {
       long aLong = sc.nextLong();
    }
```