



مرکز التميز في تكنولوجيا المعلومات
सूचना प्रौद्योगिकी उत्कृष्टता केन्द्र



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Institut National des Postes et Télécommunications

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Internship from first to 26 of July

In CEIT- Casablanca

INTERNSHIP REPORT

2018/2019

Internship accomplished in Center for Information Technology located in Technopark-Casablanca, Directed by Mr. Ashwin Borkar .

The worker Internship was under the topic :Java Programming Language, Supervised by Mr. Sitaram.

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APPRECIATIONS

First of all, I would render thanks to Mr. Ashwin Borkar who get accepted me as a trainee within the Centre of Information Technology.

Afterwards, I would thank my professor Mr. Sitaram who advised me and guide me in my assignments throughout the internship duration.

My great thanks also to the pedagogic team of The National Institute of Posts and Telecommunications (INPT),that adduce me this opportunity to realize my Internship work within the Center.

Great Thanks To all.

ABSTRACT

In my first year in Innovation and AMOA branch in the INPT school, I have done my first internship within the Center for Excellence in Information Technology, located in Damnn Boulevard, Nouacer road in Casablanca, from the first to 26 of July.

The Internship was unrolled around Java Programming Language.

Actually, This internship was a springboard for my future career. In fact, I have chosen this company because its sector activity had really attracted me besides the good formation to get wind of. Add to that, thanks to this practical and theoretical experience, I have the opportunity to learn more about Java Programming Language, and to develop quite good competencies as well as to deepen in Java tools and HTML while realizing my Java Project.

RESUME

En première année en filière Innovation et AMOA à l'Institut National des Postes et Télécommunications (INPT), J'ai effectué mon stage ouvrier au sein du Centre For Excellence in Information Technology (Ceit) ,situé à Boulevard Damnn, Route Nouacer à Casablanca, du 01 Juillet à 31 Juillet .

Mon stage s'est déroulé autour du thème du Langage de Programmation Java.

Ce stage est un tremplin pour mon avenir professionnel. En effet, J'ai choisi cette entreprise car son secteur d'activité m'a vraiment attiré. En plus, grâce à cette expérience pratique, J'ai eu l'opportunité d'apprendre le langage de programmation Java, de développer de nombreuses compétences et aussi de s'approfondir dans les outils utilisés dans Java à partir de la réalisation d'un projet.

1) Introducing the work environment:

1.1- CEIT :

During the cooperation scop between Moroccan Kingdom and Indian Republic, The Center was born by opening its doors in front of the youth holding Bac+2 in scientific and IT fields.

The CEIT ,situated in Technopark-Casablanca, is actually the product of the cooperation agreement,signed by the Ministry of India in the one hand and the Ministry of foreign business of the Indian Republic in the other hand.

I nfact, This Center entred in the field of development concerning IT sector.

CEIT is carried by the INPT(Rabat) and the Center for Development of Advanced Computing(India).

It essentially ensures a certificated training in English language , for the benefit of the students holding the Bac+2 in IT domains, under different advanced thematics in IT :Java Programming Language,Administration of Databases and Operating System :Linux.

1.2- Internship topic : JAVA :

Java is an object-oriented programming language developed by Sun Microsystems; a company best known for its high-end Unix workstations. Modeled after C++, the Java language was designed to be small, simple, and portable across platforms and operating systems, both at the source and at the binary level.

The important thing to understand about Java is that you can do so much more with it besides create applets. Java was written as a full-fledged programming language in which you can accomplish the same sorts of tasks

and solve the same sorts of problems that you can in other programming languages, such as C or C++.

At the moment, probably the most compelling reason to learn Java is that Java as a language has significant advantages over other languages and other programming environments that make it suitable for just about any programming task.

1.3- Supervision :

Throughout the internship, I was guided by the professor of Java Language Mr. Sitaram . His missions consist of explaining the course to us and to straddle us during the practical tasks so as to realise a good project.

Everyday, Mr. Sitaram suggest us new technics and guid us to clarify the problems we face while doing our assignments and to make proper decisions.

1.4- About the Project :

Since the topic of the internship is given, my project consists of a Java application that gathers 9 small applications. These applications are :the calculator, a CharCount, Puzzle game, Exam test, Snake, Puzzle Image, Tic Tac Toe, the RedBall and the current time.

My Project will be highly shelled in the suite of the report.

2) A detailed Presentation about the project :

1.1- Development tools :

❖ ECLIPSE IDE :

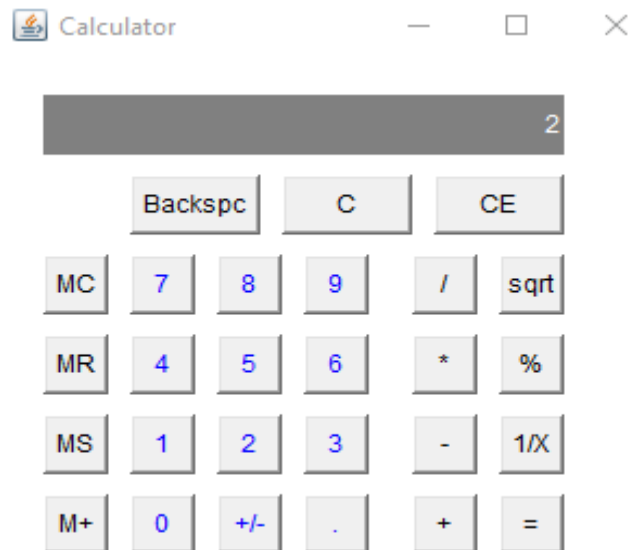
Eclipse IDE is an integrated Environment of development that supports a large variety of Programming languages and collaboration tools. The integrated editor offers many functions of semantic control and code recovery (renaming, method changing and classes management) and also offers the safeguard and the reprise.



1.2- My Java Application : ✓ MyCalculator :

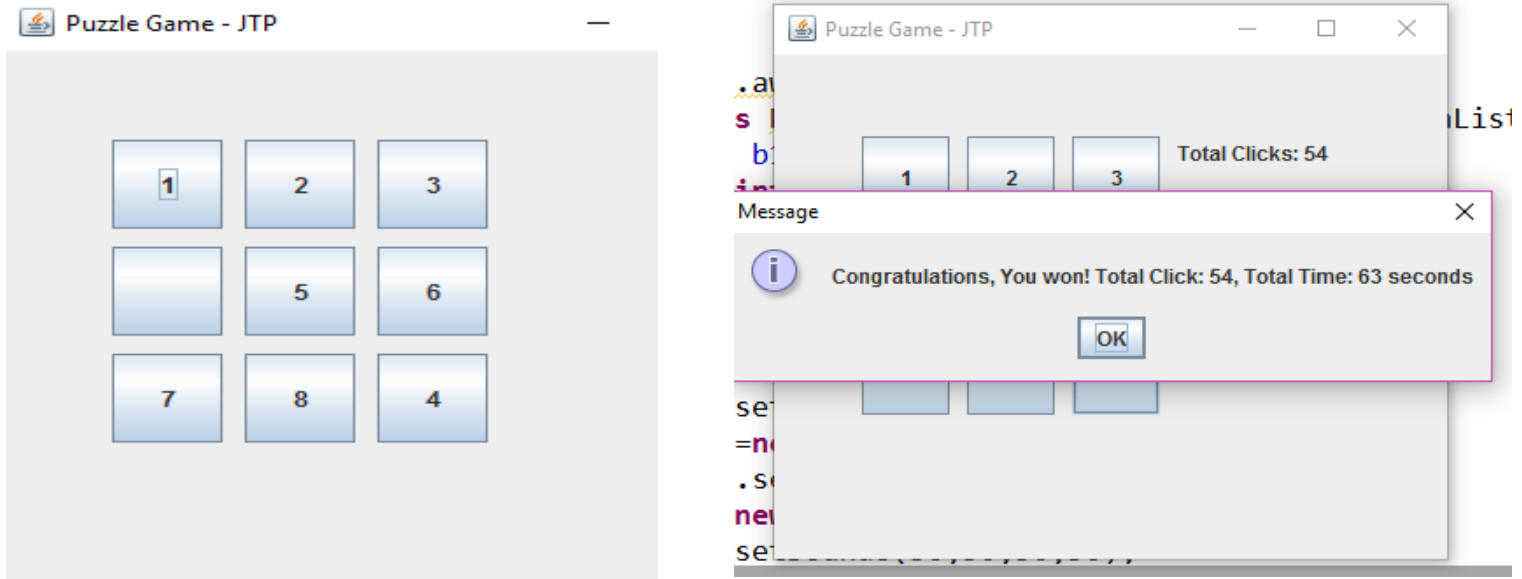
It is an application that perform scientific calculations : multiplication, division, addition etc . The sort of the program is like this :

```
1 package JavaApplication;
2
3
4 import java.awt.*;
5 import java.awt.event.*;
6 /*****
7
8 public class MyCalculator extends JFrame {
9 {
10
11 public boolean setClear=true;
12 double number, memValue;
13 char op;
14
15 String digitButtonText[] = {"0","1","2","3","4","5","6","7","8","9"};
16 String operatorButtonText[] = {"+","-","*","/","%","1/X","C","CE","Backspc"};
```



✓ Puzzle Game :

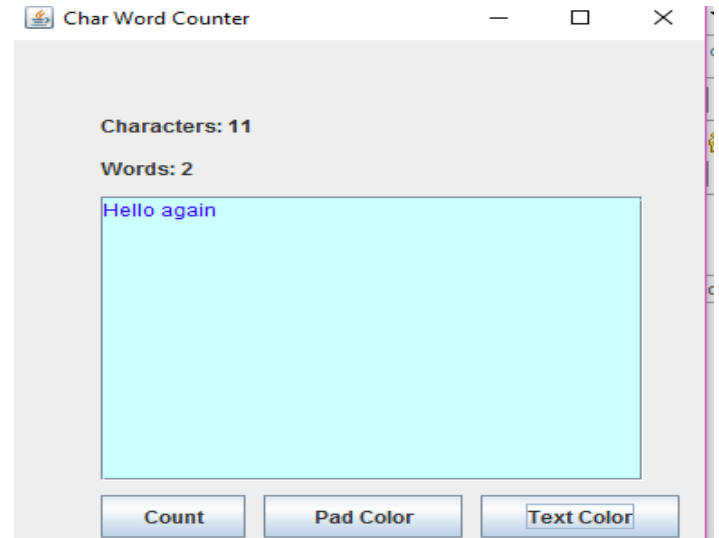
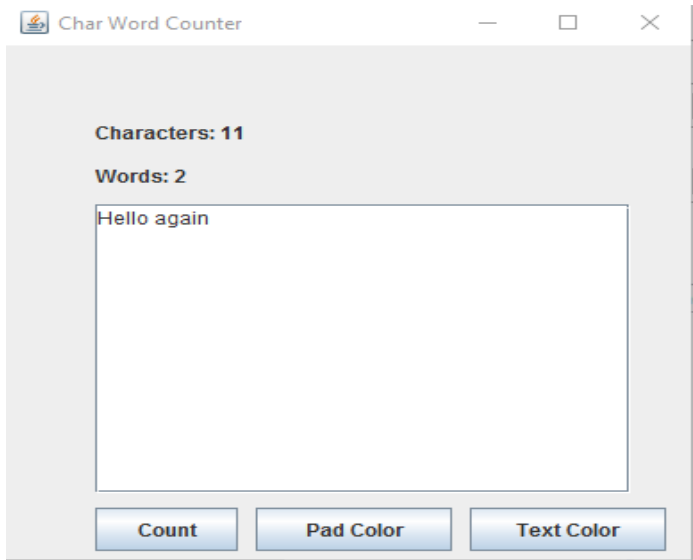
the goal of this application is to sort the numbers from 1 to 8. It also count the number of clicks you do while playing and the time spent either.



✓ Char Counter :

Char Counter is an application that could count the number of words and characters written, with the possibility to change the text color as well as the background. This application has three buttons : Count that counts the number of words and characters, textColor is the one that let the user change the text color to any any color he wants, and Pad color that facilites to the user the possibility to change the color of the background while writing and counting words.

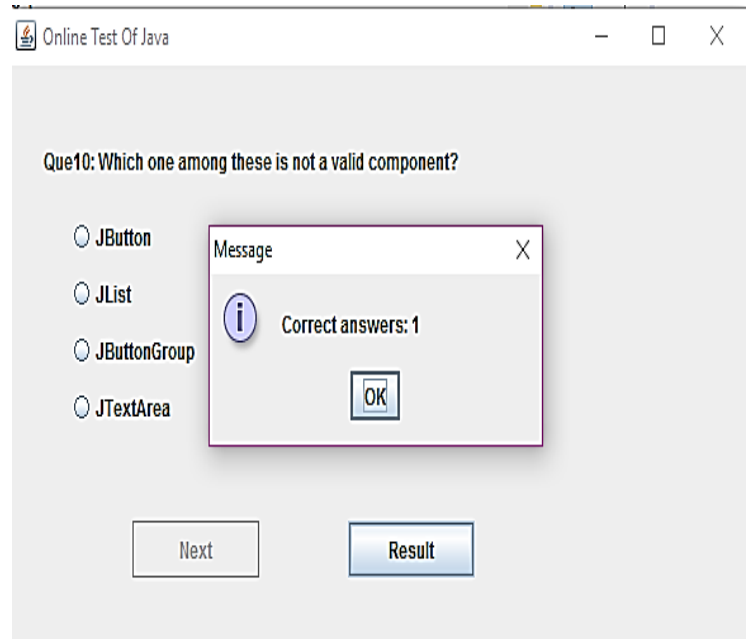
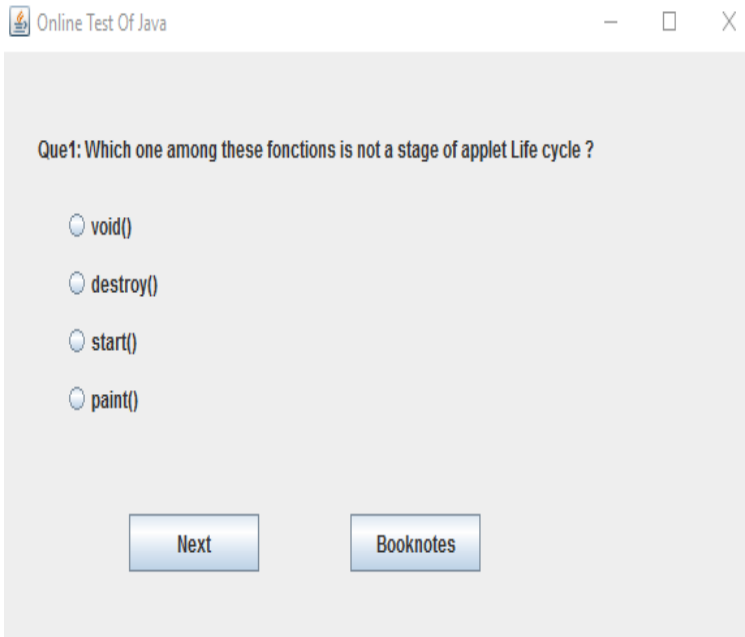
The output of this program is like :



✓ Online Java Test :

This application composed of questions with multiple answers ; all concerning the java course. It also contains essentially 10 questions to be answered. Each question that is correct is counted as a point. There is a bookmark that is like a hint for the user to answer some questions. When the user finished the test, a message displays the number of questions answered.

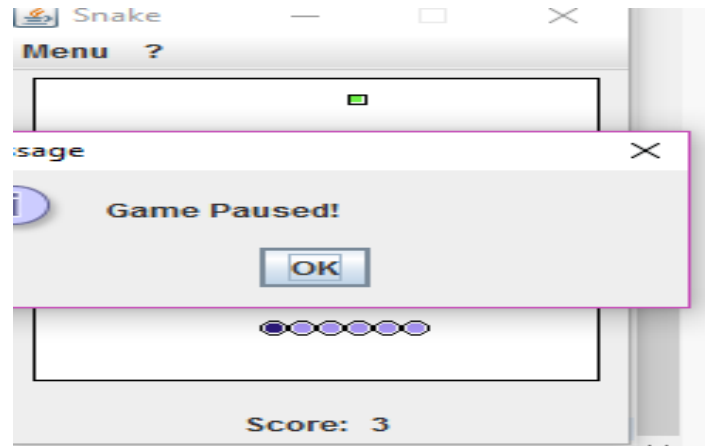
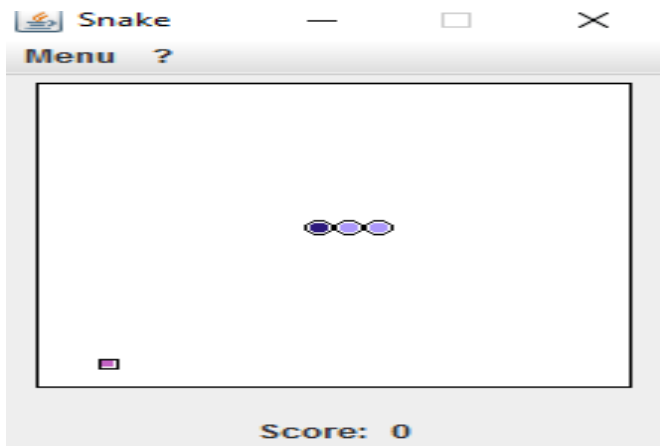
The compilation of this program gives as an output :

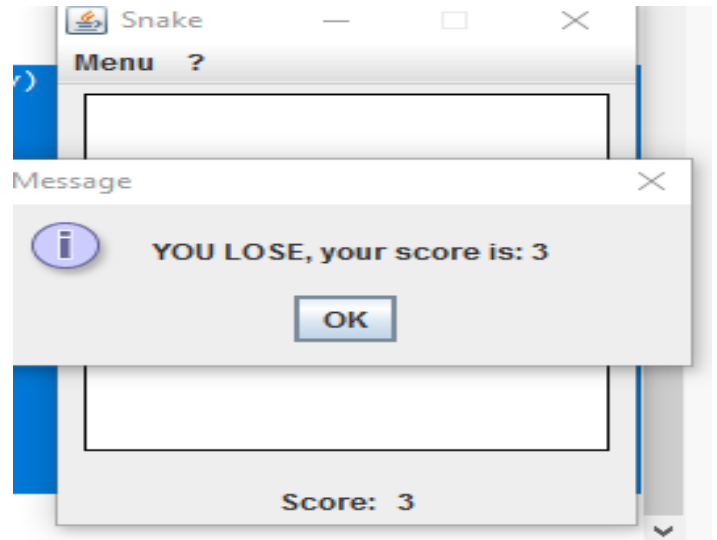
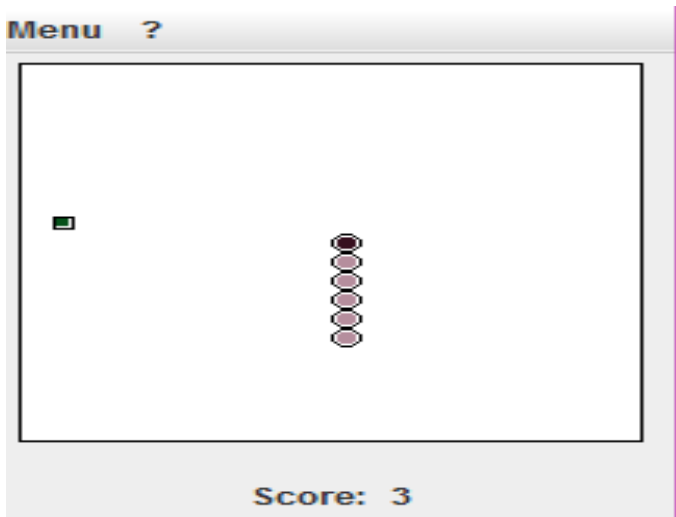


✓ The snake game :

The concept of the game consists of a hungry snake that follows the direction where exists the food. The game composed of the buttons to even pause, restart or even to quit the game. That includes also the achieving score.

he output of the program is such as :

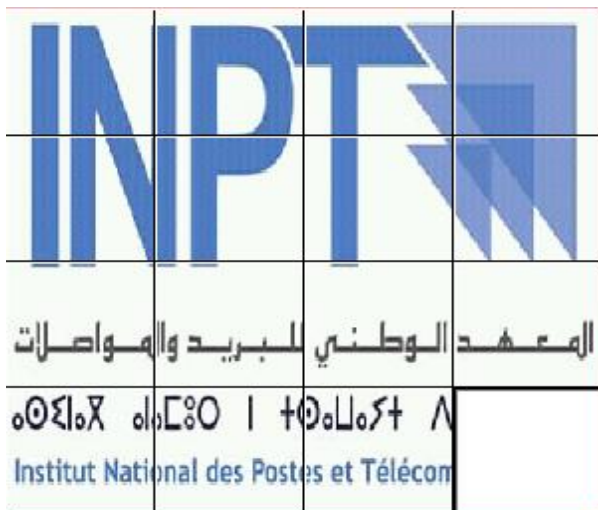




✓ Puzzle Image :

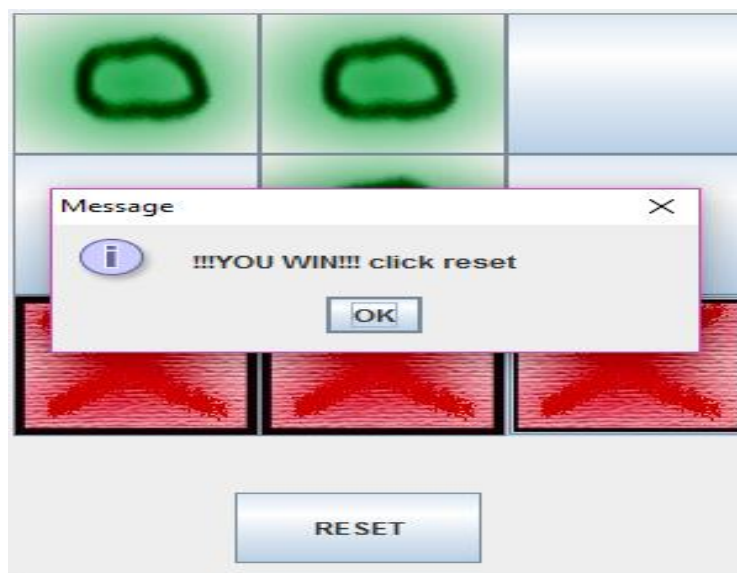
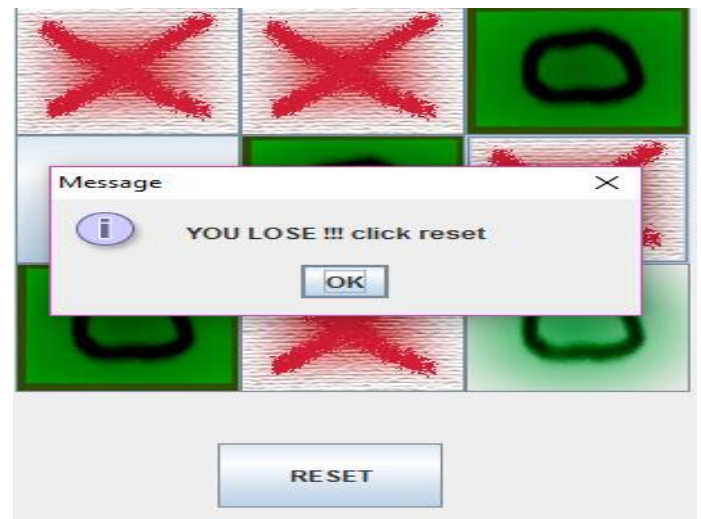
This puzzle game based on the import of an image in the desktop and when the game is started the image get separated to many small pieces so as the player can sort the pieces to get back the old image in order to win the game.

While Compiling the code, we get the following interface :



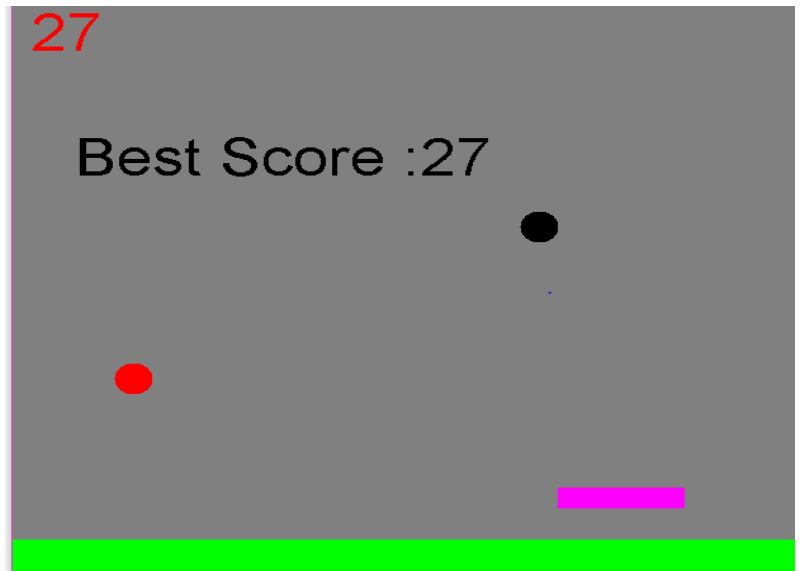
✓ Tic-Tac-Toe :

This application contains 9 cases. The game played even with the computer or with a friend. The winner here is the one who firstly set 3 X or 3 O sorted vertically or horizontally .



✓ The red Ball :

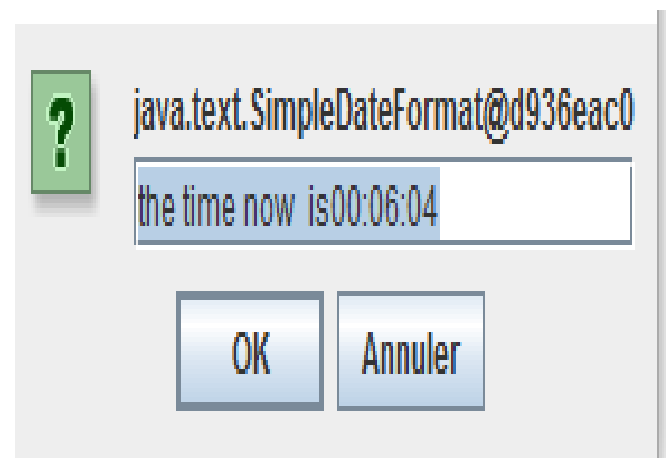
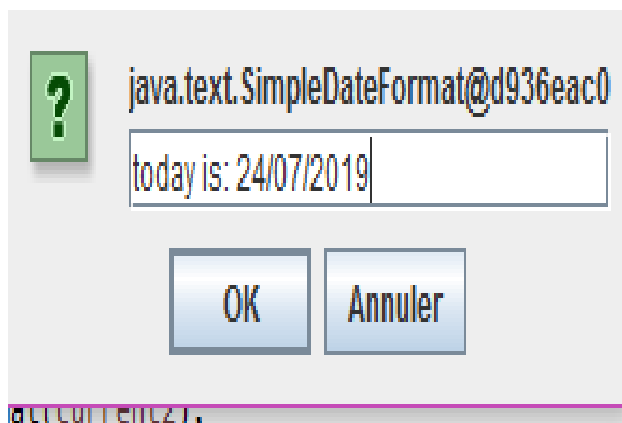
The red ball is a game composed of a ball that the player should try to get on the the gray block. To avoid the loss, the ball should not be fallen in the field. Whenever the player gets a maximum score, this last registred on the screen.



The current time :

This application enables the user to know the standard time : the date and also the exact time.

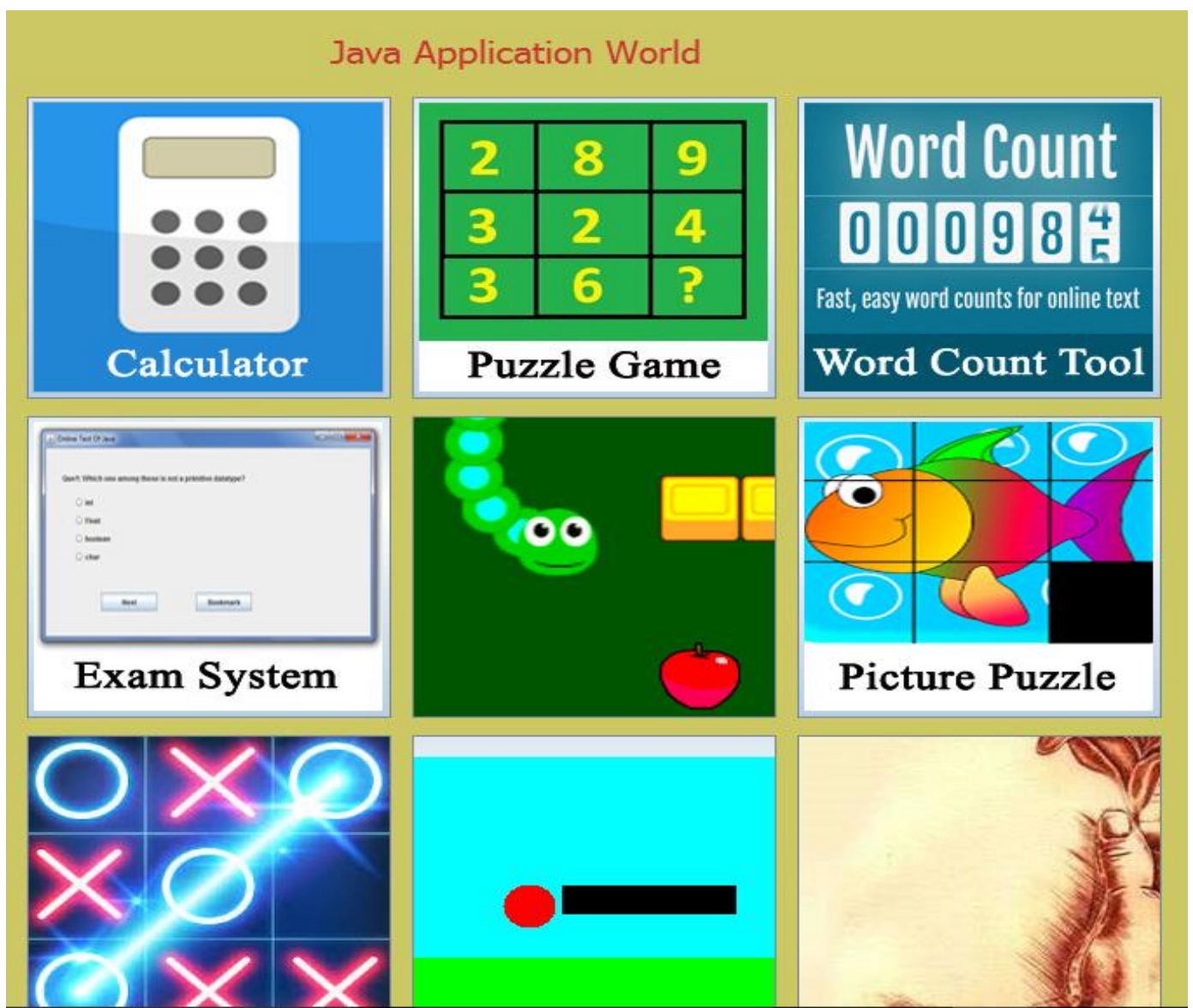
The compilation of the source code is such as :



✓ The Java World Application :

As I mentioned before, The java world application is the one application that collect all the previous programs in one graphical Interface.

The output of this project ,when it executed, is like this :



CONCLUSION

By the scope of that project, I tend to point out that its achievement was a good beneficial opportunity for me , because it is such a great occasion to consolidate my theoretical acquaintances.

To sum up, This project is really rich when it concerns the concret approach of applications in Java and also project management domains that seem very important in our present and our futur either.