



INTRODUCCIÓN A JAVA

Java Básico

- [Objetivos](#)
- [Un poco de historia](#)
- [Java](#)
- [IDE](#)
- [Mi primer programa](#)



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Objetivo(s)

- Comprender los orígenes y el funcionamiento de java.
- Crear un nuevo proyecto en netbeans



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Un poco de historia

Un poco de historia

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- Proyecto *7 (set-top-box)
- Creador: James Gosling
- Objetivos: Máquina virtual + lenguaje similar a C++



Un poco de historia (II)

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- Problemas con *7
- 90's, cambio de dirección

□ Navegador WebRunner

□ Internet, nuevo hogar de Java



¿Porqué Java?

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- Primero fue “**Oak**”.
- Luego pasó a denominarse “**Green**” (Oak ya existía)
- El término “**JAVA**” fue acuñado en una cafetería frecuentada por algunos de los miembros del equipo.
- Hipótesis:
 - ▣ Iniciales de sus creadores: **J**ames Gosling, **A**rthur **V**an Hoff, y **A**ndy Bechtolsheim.
 - ▣ Otras abogan por “**J**ust **A**nother **V**ague **A**cronym”.
 - ▣ La hipótesis que más fuerza tiene es la que Java debe su nombre a un tipo de café disponible en la cafetería.

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Java



Java

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- Java es al mismo tiempo
 - Un lenguaje de programación
 - Una plataforma



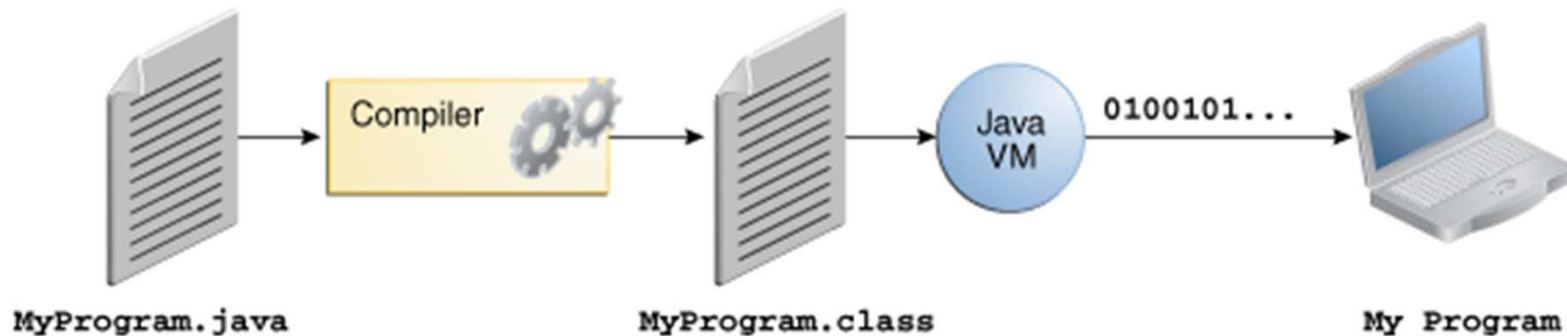
Características del lenguaje Java

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- Simple
- Orientado a Objetos
- Distribuído
- Multihilos
- Dinámico
- De arquitectura neutra
- Portable
- Cómputo de alto rendimiento
- Robusto
- Seguro

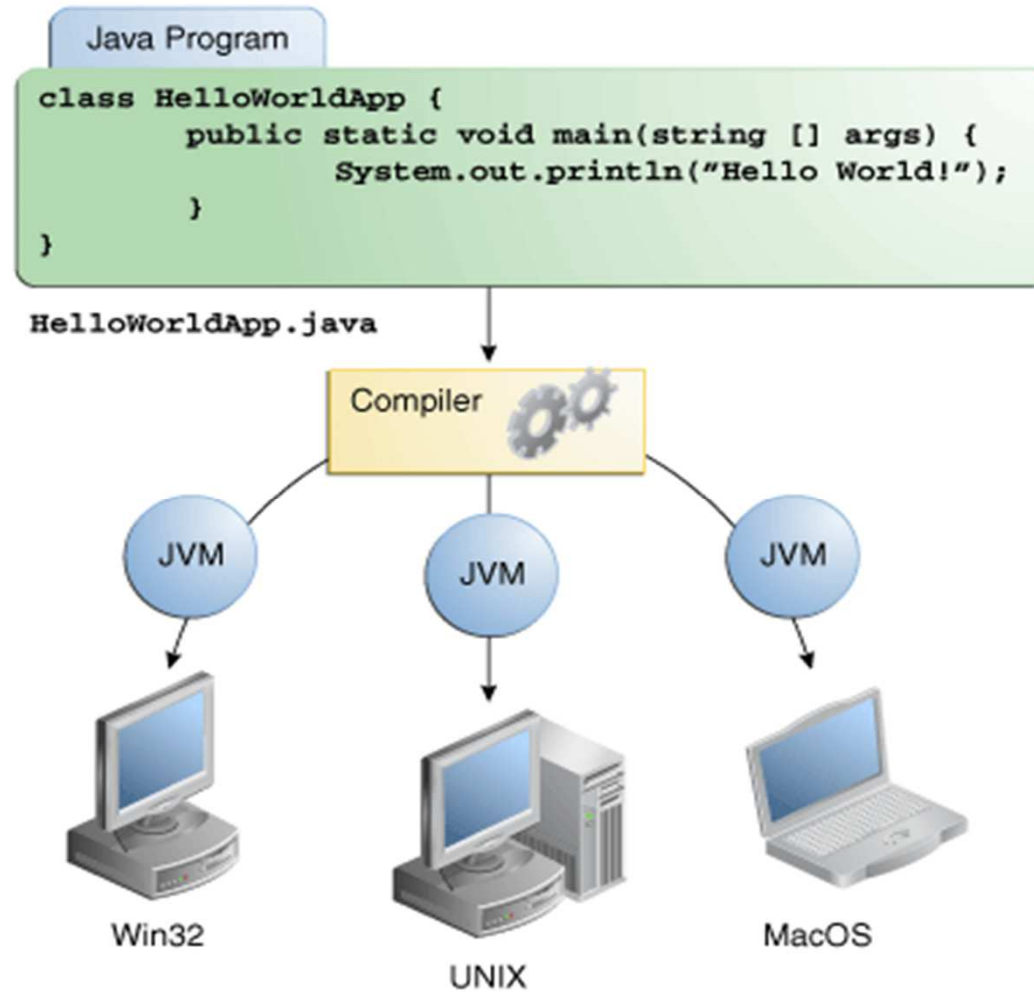
Proceso de creación de un programa

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Máquina virtual

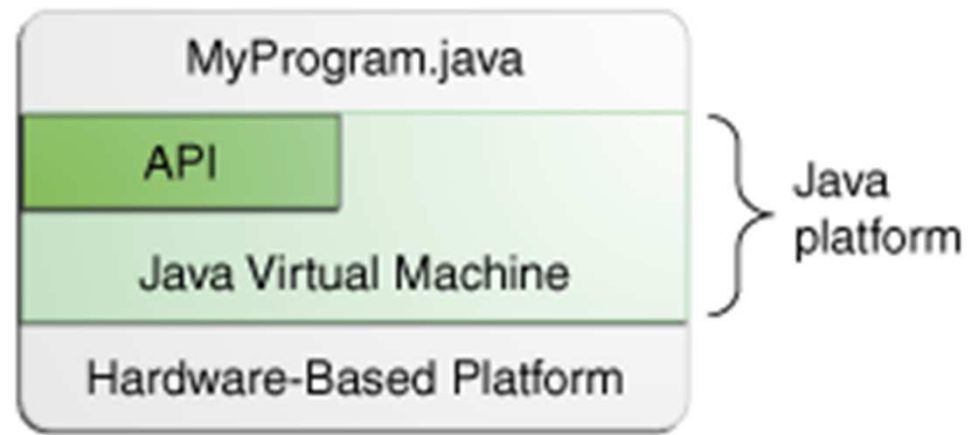
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Plataforma Java

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- ¿Qué es una plataforma?
- Java es una plataforma de software únicamente.



- Se ejecuta sobre otras plataformas de hardware-software
- Componentes: JVM + API

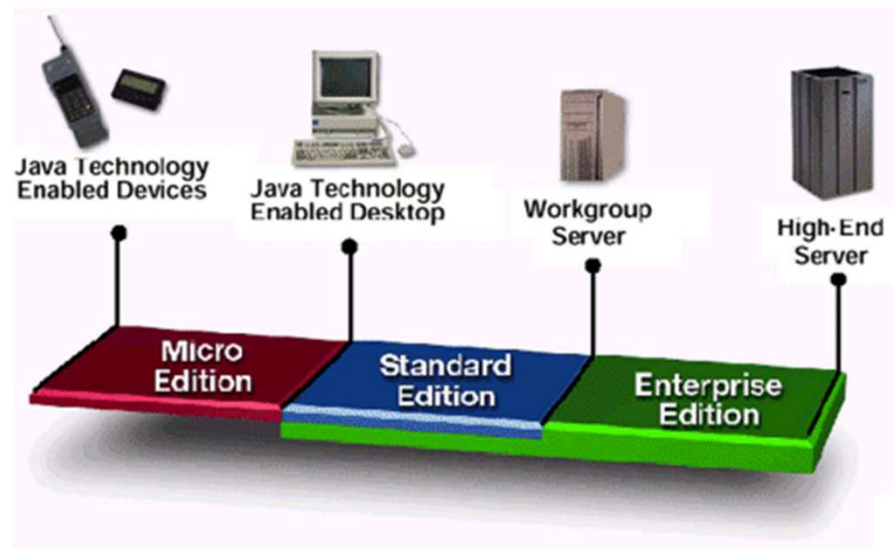
Características de la plataforma

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- ❑ Herramientas de desarrollo (Compilador, Depurador, Generador de código, Monitor de aplicaciones)
- ❑ Interfaz de programación de aplicaciones (API)
- ❑ Tecnologías para la distribución de la aplicación (Java Web Start, Java Plug-In)
- ❑ Herramientas para crear GUI's (Swing + Java 2D)
- ❑ Bibliotecas de integración con otras tecnologías.

Alcances de la tecnología Java

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IDE

IDE NetBeans

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- ❑ IDE (Integrated Development Environment)
- ❑ No es parte de la plataforma Java.
- ❑ Ofrece herramientas gráficas para la edición, compilación, depuración y ejecución de los programas creados en Java.
- ❑ Es más cómodo que un bloc de notas.

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- Database 11g Release 2 Express Edition
- MySQL
- Berkeley DB
- Instant Client
- Application Express
- See All ...

Middleware

- Fusion Middleware (incl. WebLogic Server)
- JRockit
- SOA Suite
- See All ...

Enterprise Management

- Enterprise Manager
- Application Testing Suite
- See All ...

Server and Storage Systems

- Solaris
- Linux and VM
- Firmware
- See All ...

Developer Tools

- SQL Developer
- JDeveloper and ADF
- Developer Tools for Visual Studio
- Enterprise Pack for Eclipse
- NetBeans IDE
- See All ...

Applications

- E-Business Suite, PeopleSoft, JD Edwards, Siebel CRM
- Agile
- Autovue
- See All ...

Popular Downloads

- Java for Developers
- Java for Your Computer
- JavaFX
- Oracle Solaris
- MySQL
- Fusion Middleware 11g
- Database 11g
- Pre-Built Developer VMs

Free Open Source Software

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Industries

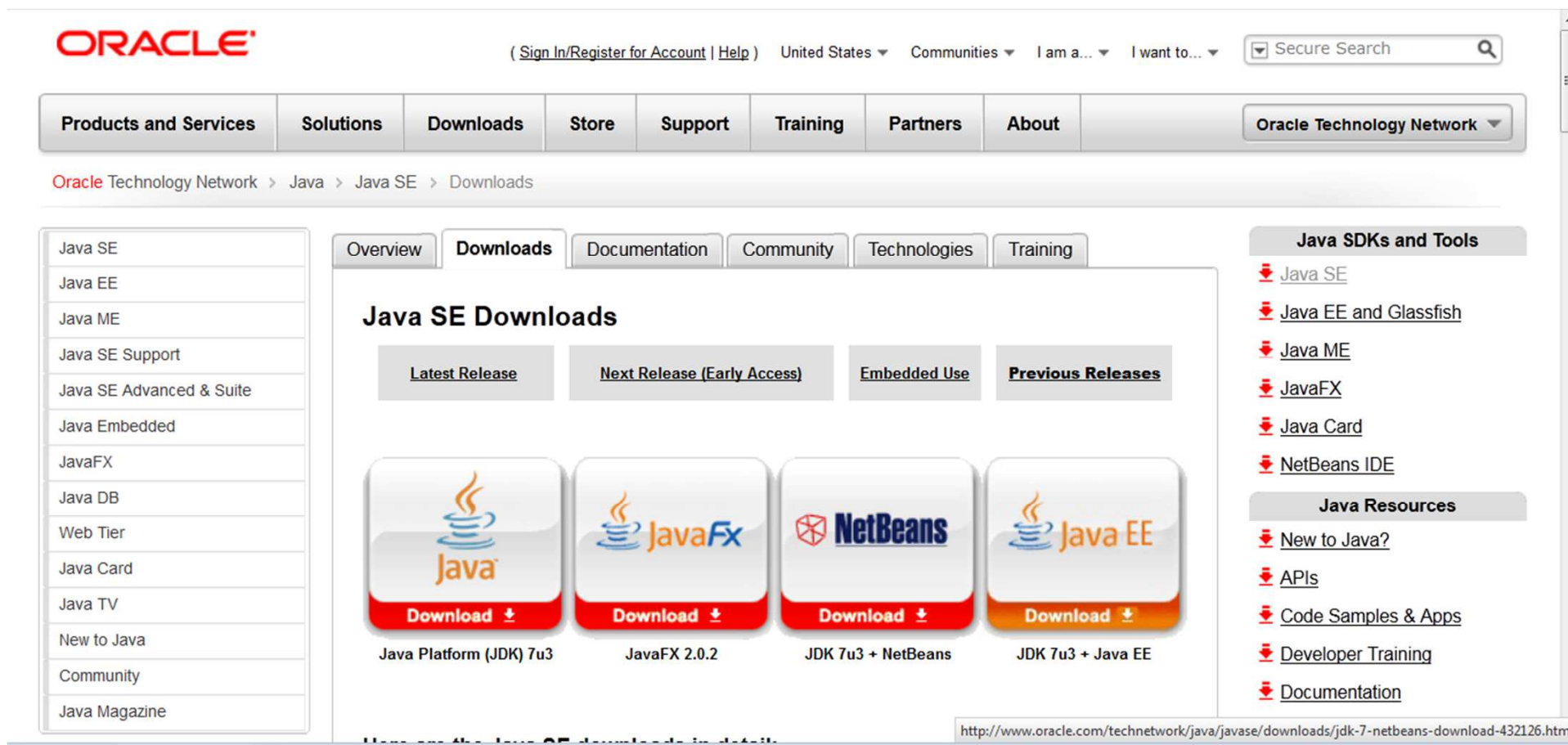
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Descarga del JDK Java

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The screenshot shows the Oracle Java SE Downloads page. The top navigation bar includes the Oracle logo, a search bar, and links for Sign In/Register, Help, United States, Communities, I am a..., I want to..., and Secure Search. Below this is a secondary navigation bar with links for Products and Services, Solutions, Downloads, Store, Support, Training, Partners, About, and Oracle Technology Network. The main content area is titled "Java SE Downloads" and features four download buttons: "Latest Release", "Next Release (Early Access)", "Embedded Use", and "Previous Releases". Below these buttons are four download cards: "Java Platform (JDK) 7u3", "JavaFX 2.0.2", "JDK 7u3 + NetBeans", and "JDK 7u3 + Java EE". Each card has a "Download" button. On the left side, there is a sidebar with a list of links: Java SE, Java EE, Java ME, Java SE Support, Java SE Advanced & Suite, Java Embedded, JavaFX, Java DB, Web Tier, Java Card, Java TV, New to Java, Community, and Java Magazine. On the right side, there are two sections: "Java SDKs and Tools" with links for Java SE, Java EE and Glassfish, Java ME, JavaFX, Java Card, and NetBeans IDE; and "Java Resources" with links for New to Java?, APIs, Code Samples & Apps, Developer Training, and Documentation. The URL at the bottom of the page is <http://www.oracle.com/technetwork/java/javase/downloads/jdk-7-netbeans-download-432126.html>.

Descarga del JDK Java

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JDK 7u3 with NetBeans 7.1.1

This distribution of the JDK includes the [NetBeans IDE](#), which is a powerful integrated development environment for developing applications on the Java platform. [Learn more](#)

You must accept the [JDK 7u3 and NetBeans 7.1.1 Cobundle License Agreement](#) to download this software.

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Java SE and NetBeans Cobundle (JDK 7u3 and NB 7.1.1)

Product / File Description	File Size	Download
Linux (32-bit)	164.74 MB	jdk-7u3-nb-7_1_1-linux-ml.sh
Solaris SPARC (32-bit)	167 MB	jdk-7u3-nb-7_1_1-solaris-sparc-ml.sh
Solaris x86 (32-bit)	158.25 MB	jdk-7u3-nb-7_1_1-solaris-x86-ml.sh
Windows (32-bit)	188.6 MB	jdk-7u3-nb-7_1_1-windows-ml.exe

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▪ [Java SE 7 Readme](#)

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<http://www.oracle.com/technetwork/java/javase/downloads/jdk-7-netbeans->



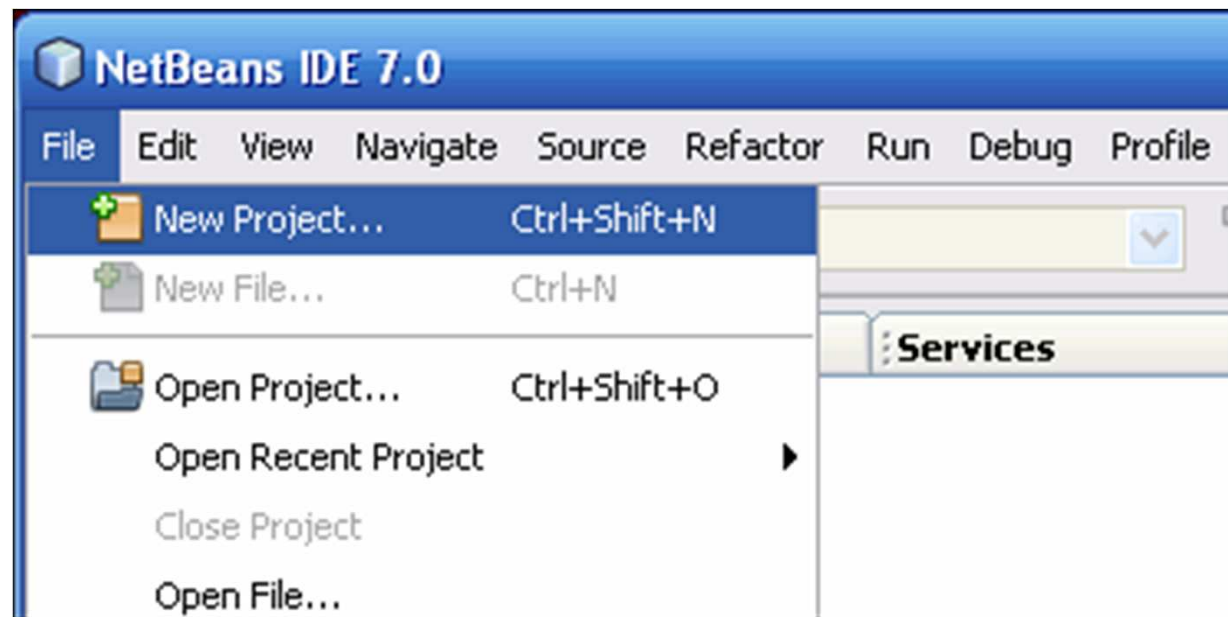
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Mi primer programa

El primer programa

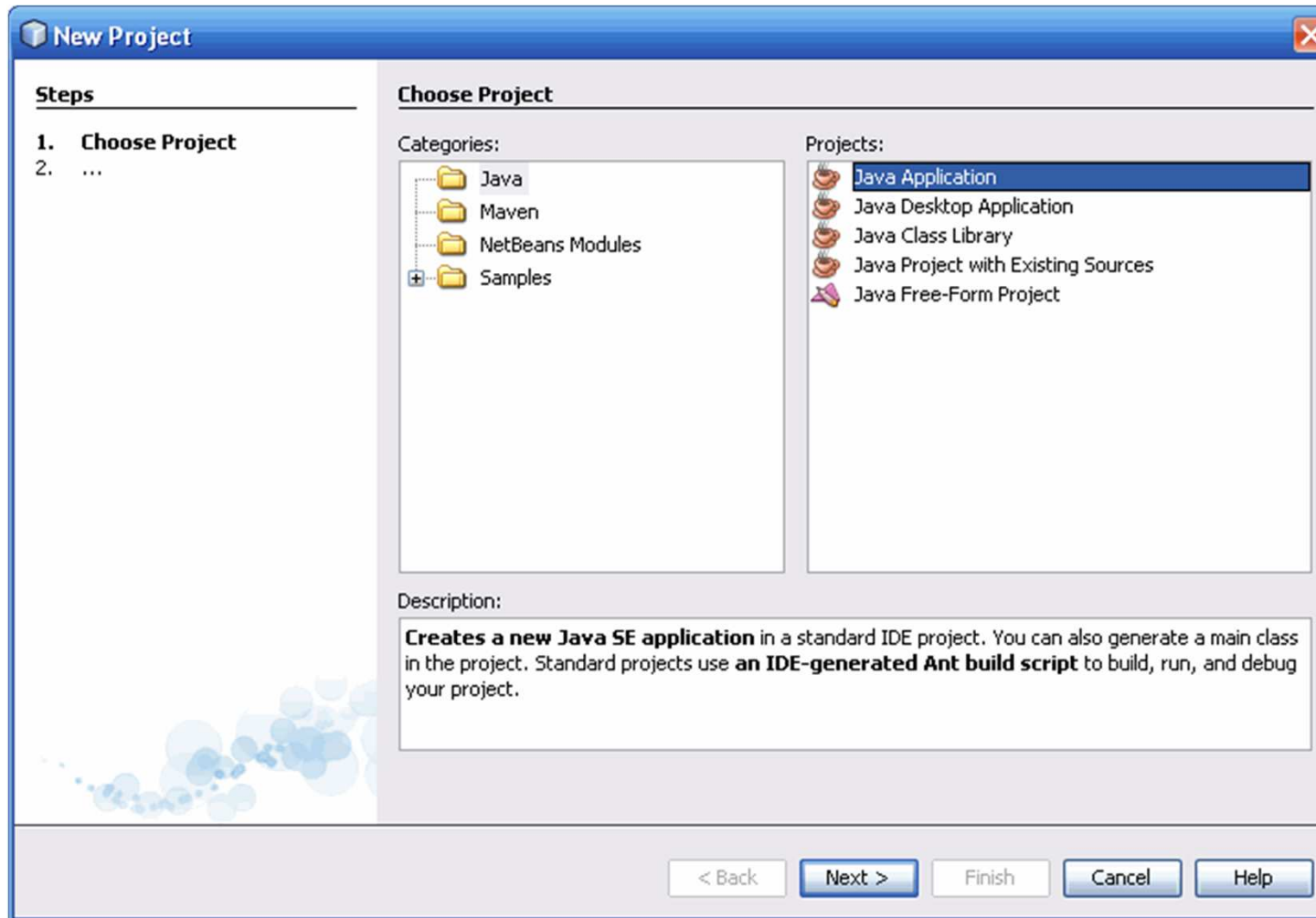
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- ❑ Ejecutar NetBeans
- ❑ Escoger: Nuevo Proyecto



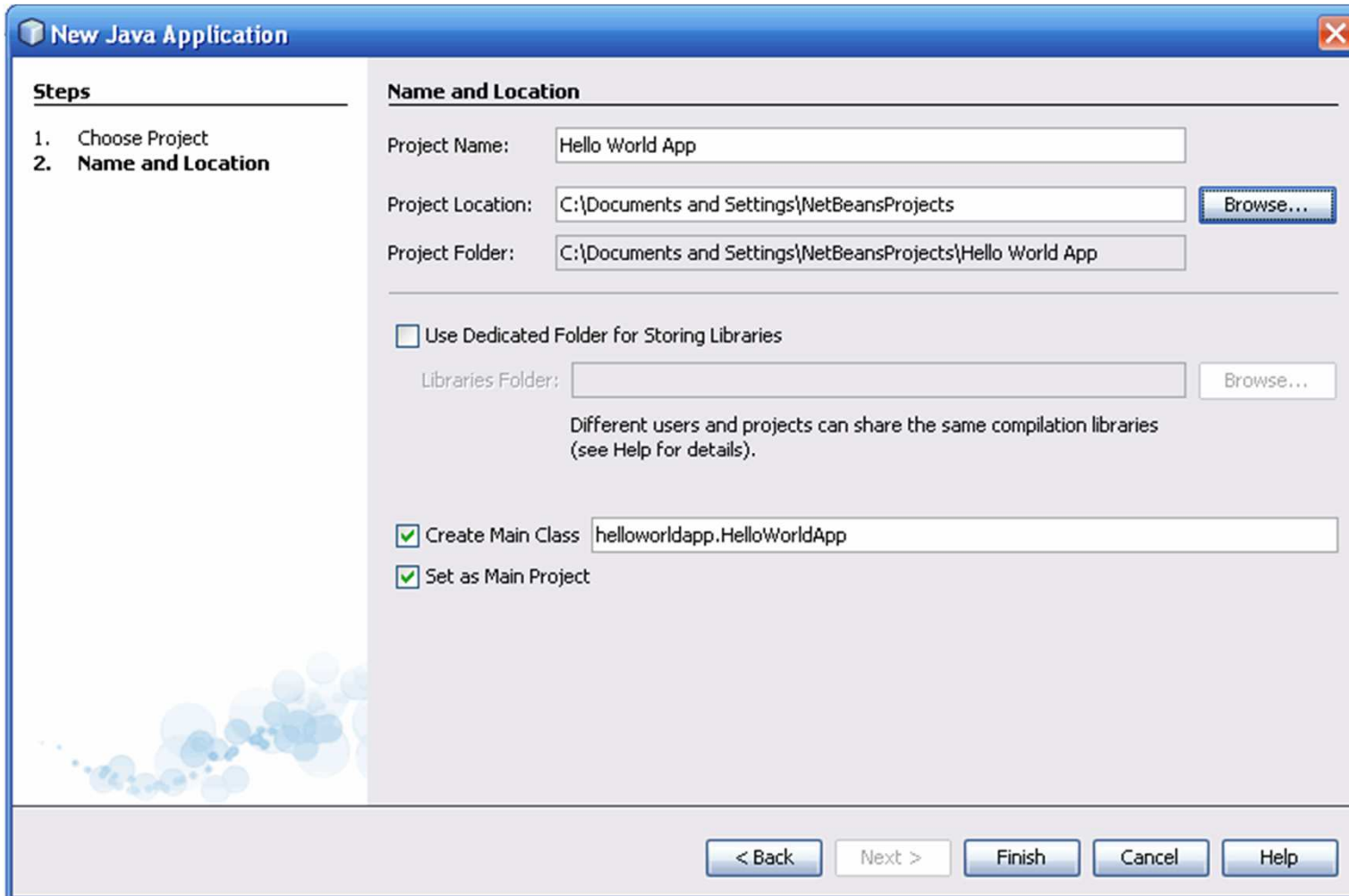
Tipo de aplicación

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Asistente de creación de proyectos

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The screenshot shows the 'New Java Application' wizard in NetBeans. The window has a blue title bar with the text 'New Java Application' and a close button. On the left, a 'Steps' pane lists two steps: '1. Choose Project' and '2. Name and Location', with the second step being the current active step. The main area is titled 'Name and Location' and contains several input fields and checkboxes. The 'Project Name' field is filled with 'Hello World App'. The 'Project Location' field is filled with 'C:\Documents and Settings\NetBeansProjects' and has a 'Browse...' button to its right. The 'Project Folder' field is filled with 'C:\Documents and Settings\NetBeansProjects\Hello World App'. Below these fields, there is a checkbox labeled 'Use Dedicated Folder for Storing Libraries' which is unchecked. To its right is a 'Libraries Folder' field and another 'Browse...' button. Below this, a text label reads 'Different users and projects can share the same compilation libraries (see Help for details)'. Further down, there are two checked checkboxes: 'Create Main Class' and 'Set as Main Project'. The 'Create Main Class' checkbox has a text field next to it containing 'helloworldapp.HelloWorldApp'. At the bottom of the window, there are five buttons: '< Back', 'Next >', 'Finish', 'Cancel', and 'Help'.

Steps

1. Choose Project
2. **Name and Location**

Name and Location

Project Name: Hello World App

Project Location: C:\Documents and Settings\NetBeansProjects **Browse...**

Project Folder: C:\Documents and Settings\NetBeansProjects\Hello World App

☐ Use Dedicated Folder for Storing Libraries

Libraries Folder: **Browse...**

Different users and projects can share the same compilation libraries
(see Help for details).

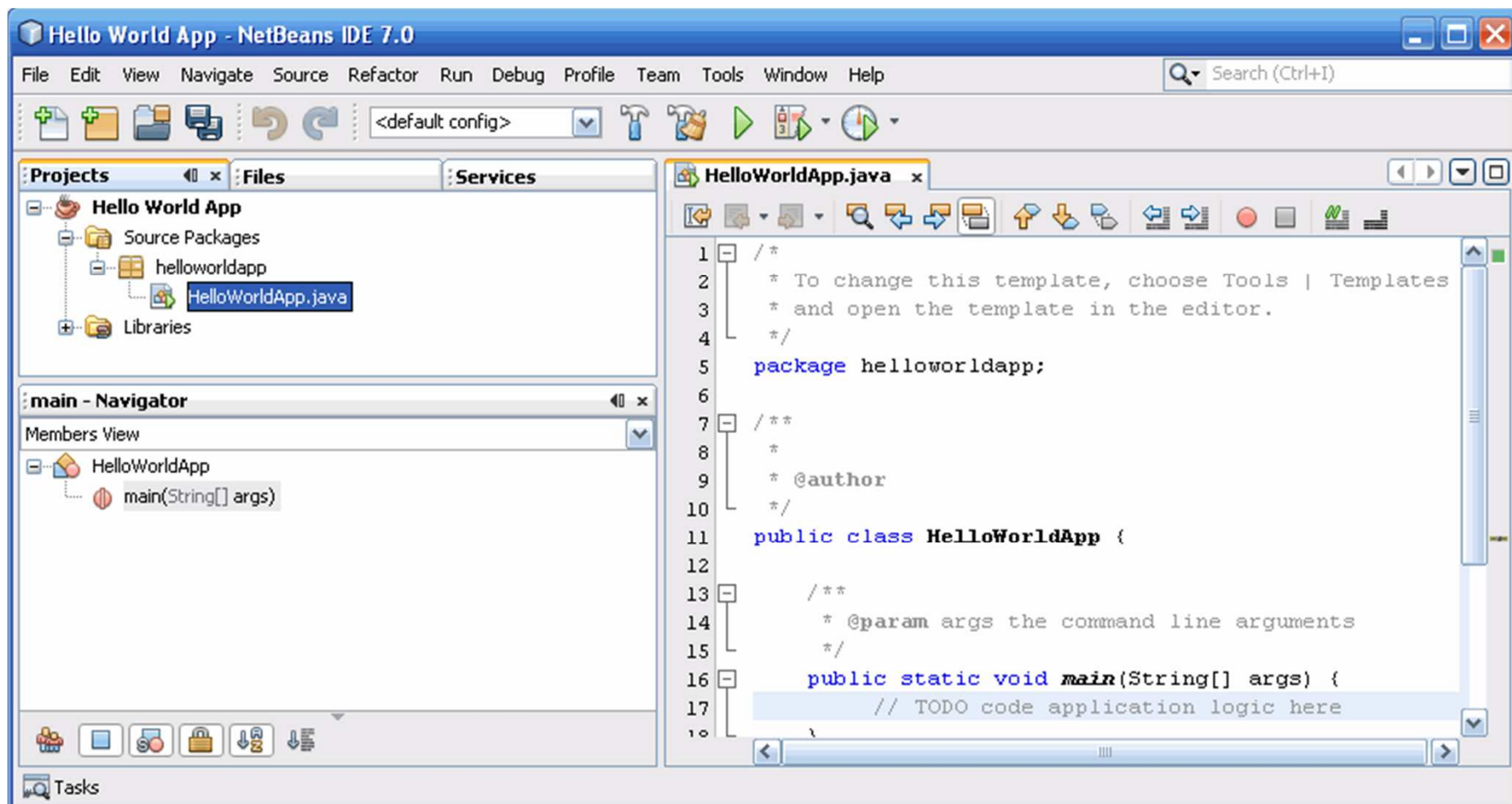
☒ Create Main Class helloworldapp.HelloWorldApp

☒ Set as Main Project

< Back Next > Finish Cancel Help

Componentes

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Agregando código

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- Reemplazar la línea:

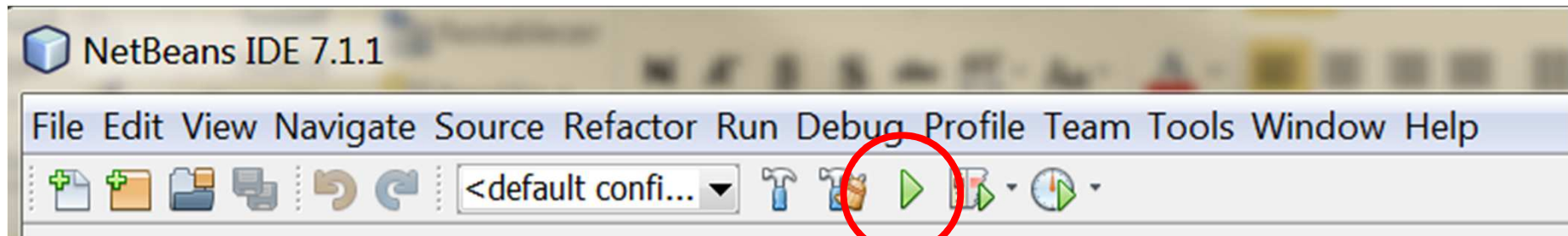
```
// TODO code application logic here
```

- Por:

```
System.out.println("Hello World!");
```

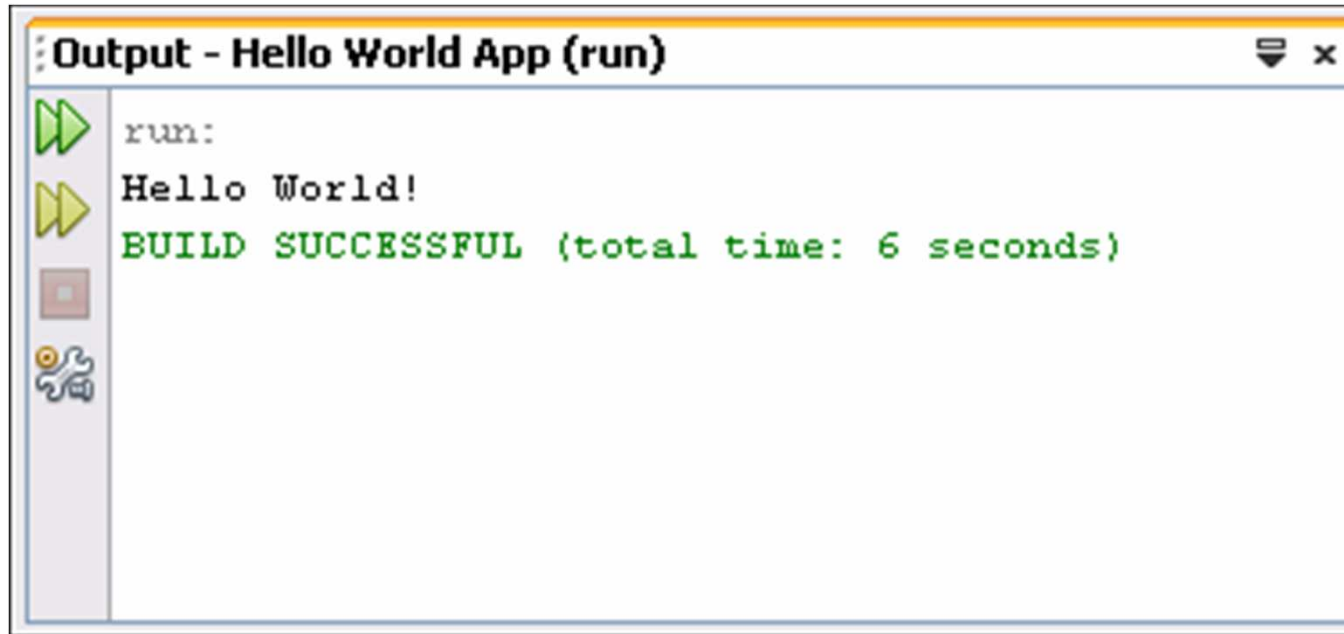
Ejecutar el proyecto

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Salida del programa

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The screenshot shows a window titled "Output - Hello World App (run)" with a standard window control bar (minimize, maximize, close). On the left side of the window is a vertical toolbar containing four icons: a green double arrow pointing right, a yellow double arrow pointing right, a red square, and a blue icon with a gear and a lightning bolt. The main area of the window displays the following text in a monospaced font:

```
run:  
Hello World!  
BUILD SUCCESSFUL (total time: 6 seconds)
```

Modificando el código

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```
public class HelloWorldApp{  
  
    public static void main (String [] args){  
  
        System.out.println ("Este es un texto");  
        System.out.println ("que fue impreso desde JAVA");  
        System.out.println ();  
        System.out.println ("Ya soy todo un programador!");  
    }  
}
```

Ejercicio



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- Crea un nuevo proyecto en NetBeans.
- Crea un programa que imprima una bienvenida con tu nombre.
 - La salida debe ser:

¡Bienvenido , es un gusto compilar para ti!

