

# Практическое использование Java

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# Инсталляция Java

- Документация в docs
- Прописать PATH (каталог bin в JSDK)
- Прописать CLASSPATH (путь к jre/lib, путь к текущему каталогу ■ )

# Создание программы на Java

```
/* The HelloWorldApp class implements an application that displays "Hello World!" to the standard output.
```

```
*/
```

```
public class HelloWorldApp
```

```
{
```

```
    public static void main(String[] args)
```

```
    {
```

```
        // Display "Hello World!"
```

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

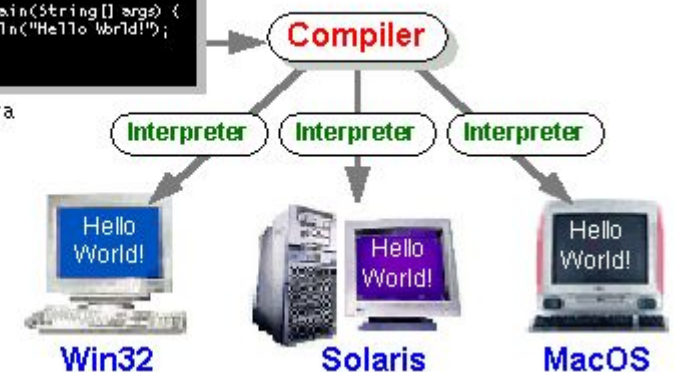
```
    }
```

```
}
```

## Java Program

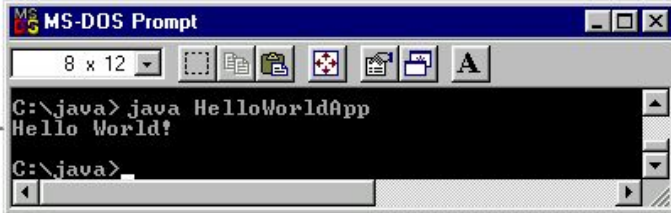
```
class HelloWorldApp {  
    public static void main(String[] args) {  
        System.out.println("Hello World!");  
    }  
}
```

HelloWorldApp.java



# Компиляция и запуск приложения на Java

- `javac имя.java`
- `java имя`



A screenshot of the MS-DOS Prompt window. The title bar reads "MS-DOS Prompt". The command prompt shows the following sequence of commands and output:

```
C:\java> java HelloWorldApp
Hello World!
C:\java>
```

A red arrow labeled "result" points to the output "Hello World!".

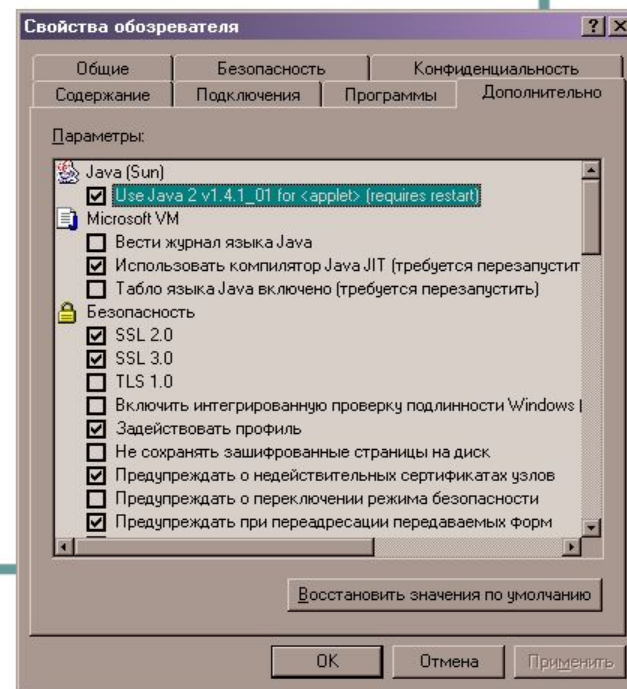
# Создание апплета на Java

```
import java.applet.*;
import java.awt.*;
/** * The HelloWorld class implements an applet that
 * simply displays "Hello World!".
 */
public class HelloWorld extends Applet
{
public void paint(Graphics g)
{
    // Display "Hello World!"
    g.drawString("Hello world!", 50, 25);
}
}
```

```
<HTML>
<HEAD>
<TITLE>A Simple Program
</TITLE>
</HEAD>
<BODY>
Here is the output of my
program:
<APPLET
CODE="HelloWorld.class"
WIDTH=150 HEIGHT=25>
</APPLET>
</BODY>
</HTML>
```

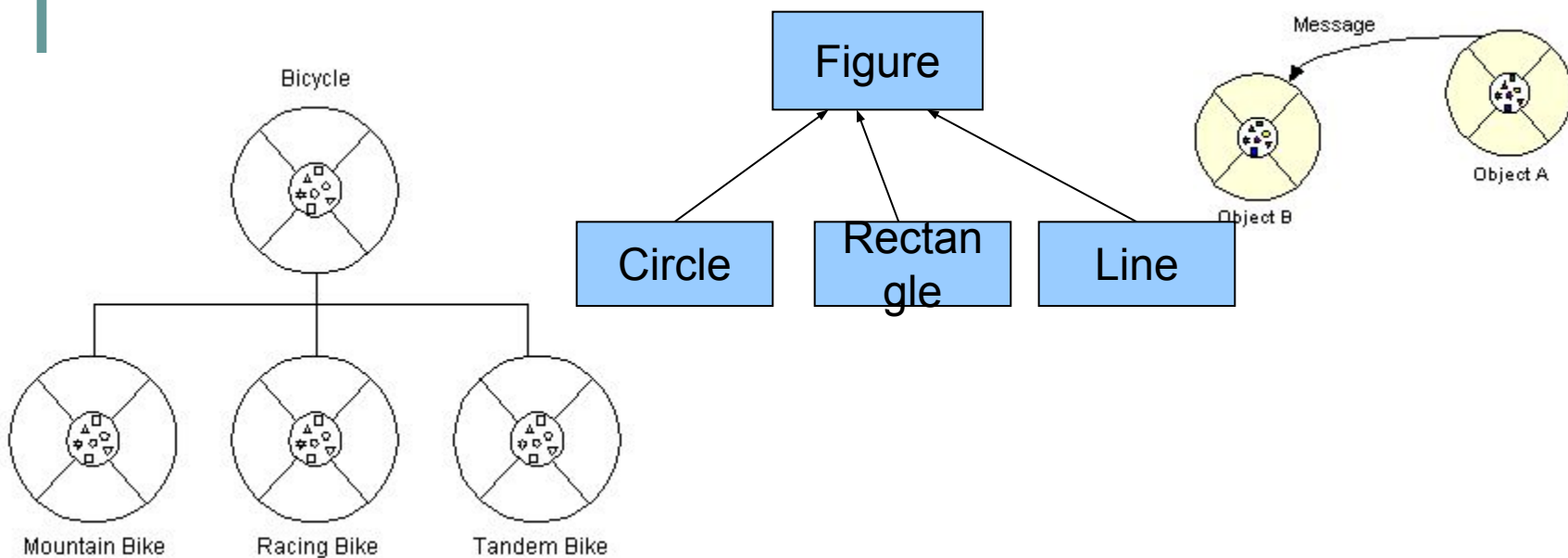
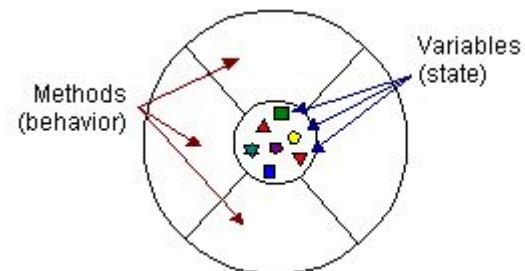
# Компиляция и запуск апплета на Java

- `javac HelloWorld.java`
- `appletviewer Hello.html`
- Открыть в браузере страницу `Hello.html`
- `appletviewer Hello.java`, со вставкой в комментарии  
`<APPLET  
CODE="HelloWorld.class"  
WIDTH=150 HEIGHT=25>  
</APPLET>`



# Объектно-ориентированное программирование

- Инкапсуляция
- Наследование
- Полиморфизм



```
void draw(){System.out.println("А я - окружность");}
```

```
}  
class Line extends Figure
```

```
{  
    void draw(){System.out.println("А я - линия");}
```

```
}  
class Demo
```

```
{
```

```
    public static void main(String[] a)
```

```
    {
```

```
        Figure arr[] = new Figure[3];
```

```
        arr[0] = new Rectangle();
```

```
        arr[1] = new Circle();
```

```
        arr[2] = new Line();
```

```
        for ( int i = 0; i < arr.length; i++ )
```

```
            arr[i].draw();
```

```
    }
```

```
}
```

```
class Figure
```

```
{
```

```
    void draw(){};
```

```
}
```

```
}
```

```
class Rectangle extends Figure
```

```
{
```

```
    void draw(){System.out.println("А я - прямоугольник");}
```

```
}
```

```
class Circle extends Figure
```

```
{
```

```
    void draw(){System.out.println("А я - окружность");}
```

```
}
```

```
class Line extends Figure
```

```
{
```

```
    void draw(){System.out.println("А я - линия");}
```

```
}
```

```
class Demo
```

```
{
```

```
    public static void main(String[] a)
```

```
    {
```

```
        Figure arr[] = new Figure[3];
```

```
        arr[0] = new Rectangle();
```

```
        arr[1] = new Circle();
```

```
        arr[2] = new Line();
```

```
        for ( int i = 0; i < arr.length; i++ )
```

```
            arr[i].draw();
```

```
    }
```

```
}
```

```
}
```