

# Part

11

Java Programming Language  
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# 1. Core APIs

## API ที่อยู่ในชุด SDK

Java Runtime\* I/O, Networking, Applets, Data Structure,  
Internationalization, Math, ...

Java Foundation Classes (JFC)\*  
GUI, 2D, Accessibility

Security Digital Signature, X.509 Certificate

Java IDL CORBA

JDBC\* Database Access

JavaBeans Component Library

Java RMI Communication with Java Process



## 2. Extension APIs

### API ที่ได้จาก 3rd-Party ทั่วไป

Java Communication	RS232, Parallel Port, Faxing, Smart Card
Infobus	Communication between components and applet
JavaHelp	Online Help
JavaMail	IMAP, SMTP
Java Media	3D, Multimedia, Collaboration, Telephony, Streaming
JNDI	Naming , Directory Services, LDAP, NIS
....	...



## 3. Keyboard Input

```
import java.io.*;
public class exreadin {
    public static void main(String f[]) {
        int i=0;    char c;
        try {
            while ( i != -1 ) {
                i = System.in.read(); c = (char) i;
                System.out.println( "read: " + c + " hex value: "+
                    Integer.toString(i,16));
            }
        } catch (IOException ioe) { System.out.println( "IO error:" + ioe ); }
    }
}
```



## 3. Keyboard Input

```
java exreadin
def 123
read: d hex value: 64
read: e hex value: 65
read: f hex value: 66
read: hex value: 20
read: 1 hex value: 31
read: 2 hex value: 32
read: 3 hex value: 33
read:
hex value: a
read: ? hex value: -1
```

Stop by

Ctrl-Z บน PC หรือ Ctrl-D บน Unix



## 4. File Writing

```
java exfilewrite cars.txt
jaguar
ford chevy rolls
^Z
type cars.txt
jaguar
ford chevy rolls
```



# 4. File Writing

```
import java.io.*;
public class exfilewrite {
    public static void main(String f[]) {
        FileWriter fw;
        int i;
        try {
            fw = new FileWriter( f[0] );
            while ( (i=System.in.read()) != -1 ) {
                fw.write( (char) i );
            }
            fw.close();
        } catch (IOException ioe) {
            System.out.println( "IO error:" + ioe );
        }
    }
}
```





# 5. Locale

```
import java.io.*;
import java.util.Locale;
import java.text.*;
public class exlocales {
    public static void main(String f[]) {
        java.util.Locale[] locales =
            java.text.NumberFormat.getAvailableLocales();
        System.out.println("The locales on this system are:");
        for (int i = 0; i < locales.length; ++i) {
            if (locales[i].getCountry().length() == 0) {
                // skip human language-only locales
                continue;
            }
            System.out.println(locales[i].getDisplayName());
        }
    }
}
```



## 6. ZIP Files

```
import java.io.*;
import java.util.zip.*;
public class exzip {
    public static void main(String args[]) {
        try {
            FileInputStream fis = new FileInputStream("exzip.java");
            FileOutputStream fos = new FileOutputStream("output.zip");
            ZipOutputStream z = new ZipOutputStream(fos);
            z.putNextEntry( new ZipEntry("myfile.java") );
            int i;
            while ((i = fis.read()) != -1)
                z.write((byte)i);
            z.close();
        } catch(IOException ioe) { System.out.println(ioe); }
    }
}
```



# 7. Ping

```
import java.io.*;
import java.net.*;
public class ping {
    public static void main(String a[]) throws Exception {
        if (a.length!=1) {
            System.out.println("usage: java ping <systemname> ");
            System.exit(0);
        }
        String machine = a[0];
        final int daytimeport = 13;
        Socket so = new Socket(machine, daytimeport);
        BufferedReader br =
            new BufferedReader( new InputStreamReader( so.getInputStream
() ) );
        String timestamp = br.readLine();
        System.out.println( machine + " is alive at " + timestamp );
    }
}
```



## 8. Sending E-mail

```
import java.io.*;
import java.net.*;
public class email {
    public static void main(String args[]) throws IOException {
        Socket sock;      DataInputStream dis;      PrintStream ps;
        sock = new Socket("localhost", 25);
        dis = new DataInputStream( sock.getInputStream());
        ps = new PrintStream( sock.getOutputStream());
        ps.println("mail from: trelford");
        System.out.println( dis.readLine() );
        String Addressee= "linden";
        ps.println("rcpt to: " + Addressee );
        System.out.println( dis.readLine() );
        ps.println("data");
        System.out.println( dis.readLine() );
        ps.println("This is the message\n that Java sent");
        ps.println(".");
        System.out.println( dis.readLine() );      ps.flush(); sock.close();
    }
}
```



# 9. Web Page Retrieving

```
import java.io.*;
import java.net.*;
public class email {
    public static void main(String args[]) throws IOException {
        Socket sock;      DataInputStream dis;      PrintStream ps;
        sock = new Socket("localhost", 25);
        dis = new DataInputStream( sock.getInputStream());
        ps = new PrintStream( sock.getOutputStream());
        ps.println("mail from: trelford");
        System.out.println( dis.readLine() );
        String Addressee= "linden";
        ps.println("rcpt to: " + Addressee );
        System.out.println( dis.readLine() );
        ps.println("data");
        System.out.println( dis.readLine() );
        ps.println("This is the message\n that Java sent");
        ps.println(".");
        System.out.println( dis.readLine() );      ps.flush(); sock.close();
    }
}
```