Network programming codes

Lecture 1:

11/11 lecture

threads

package javaapplication3;

import java.io.\*;

import java.util.Scanner;

import java.util.logging.Level;

import java.util.logging.Logger;

class T implements Runnable

{

String nof;

T(String name)

{

nof =name;

}

public void run() {

String line;

String res;

try {

BufferedReader b = new BufferedReader (new FileReader(nof));

while((line=b.readLine())!=null)

System.out.println(line);

}

catch(Exception e)

{

}

}

}

public class JavaApplication3 {

public static void main(String[] args)throws Exception

{

Thread t = new Thread(new T("D:\\T1.TXT"));

Thread t1 = new Thread(new T("D:\\T2.TXT"));

Thread t2= new Thread(new T("D:\\T3.TXT"));

t1.start();t2.start();t.start();

}

}

Lecture2:

package javaapplication2;

import java.io.\*;

class Process extends Thread{

private int arr[];

private int sum;

boolean isFinished=false;

public Process(int a[]) {

arr=a;

}

public void run() {

for (int value:arr)

sum +=value;

isFinished=true;

}

int getSum(){

return sum;

}

}

public class JavaApplication2{

public static void main(String[] args) throws Exception{

int a[]=new int [10000];

int b[]=new int [10000];

int c[]=new int [10000];

for (int i=0;i<10000;i++)

{

a[i]=b[i]=c[i]=i;

/\*a[i]=(int)(Math.random()\*50);

b[i]=(int)(Math.random()\*50);

c[i]=(int)(Math.random()\*50);\*/

}

Process t1 = new Process(a);

Process t2 = new Process(b);

Process t3 = new Process(c);

t1.start();t2.start();t3.start();

while (!t1.isFinished || !t2.isFinished || !t3.isFinished);

System.out.println("T1: "+t1.getSum());

System.out.println("T2: "+t2.getSum());

System.out.println("T3: "+t3.getSum());

}

}

Lecture3:

25/11 lecture

package javaapplication2;

import java.io.\*;

class Create extends Thread{

String fname;

volatile boolean isFinished;

public Create(String fname) {

this.fname = fname;

}

public void run() {

try{

BufferedWriter bf = new BufferedWriter(new FileWriter(fname));

for (int i=0;i<10000;i++)

bf.write ( ((int)(Math.random()\*50))+"\n" );

bf.close();

isFinished=true;

}catch(Exception e){

e.printStackTrace();

}

}

}

class ReadFile extends Thread{

String fname;

double sum;

volatile boolean isFinished;

JavaApplication2 app;

public ReadFile(String fname, JavaApplication2 o) {

this.fname = fname;

app=o;

}

public void run(){

String num;

try{

BufferedReader bf = new BufferedReader(new FileReader(fname));

while ((num=bf.readLine())!=null)

if (Integer.parseInt(num)%2==1)

sum +=Integer.parseInt(num);

bf.close();

isFinished=true;

JavaApplication2.getInfo(sum);

app.getInfoRef(sum,fname);

}catch(Exception e){

e.printStackTrace();

}

}

}

public class JavaApplication2{

static int c=0;

static double max;

int counter=0;

public static void main(String[] args) throws Exception{

Create t1 = new Create ("e:\\f1.txt");

Create t2 = new Create ("e:\\f2.txt");Create t3 = new Create ("e:\\f3.txt");

t1.start();t2.start();t3.start();

boolean flag=false;

while (! t1.isFinished || !t2.isFinished || ! t3.isFinished);

System.out.println("done....");

JavaApplication2 obj = new JavaApplication2();

ReadFile r1 = new ReadFile("e:\\f1.txt",obj);

ReadFile r2 = new ReadFile("e:\\f2.txt",obj);

ReadFile r3 = new ReadFile("e:\\f3.txt",obj);

r1.start();r2.start();r3.start();

while (! r1.isFinished || !r2.isFinished || ! r3.isFinished);

System.out.println("r1: "+r1.sum);

System.out.println("r2: "+r2.sum);

System.out.println("r3: "+r3.sum);

}

static void getInfo(double s){

if (c++==0)

max=s;

if (s>max)

max=s;

if (c==3)

System.out.println("max: "+max);

}

void getInfoRef(double s, String name){

counter++;

System.out.println(name+"\t"+s);

if (counter ==3)

System.out.println("done ref method");

System.out.println("counter : "+counter);

}

}

Lecture4:

//1/12/2021 lecture

package javaapplication2;

import java.io.\*;

class PrintValues{

void print(String name) {

for (int i=0;i<20;i++)

System.out.println(name+" unsynchonized zone: "+i);

synchronized(this){

try{

if (name.equals("T3"))

wait(1000);

}catch(Exception e){

e.printStackTrace();

}

for (int i=0;i<20;i++)

System.out.println(name+"\t"+i);

}

}

}

class ReadFile extends Thread{

PrintValues obj;

String name;

public ReadFile(String nam, PrintValues obj) {

this.obj=obj;

name=nam;

}

public void run(){

for (int i=0;i<20;i++)

System.out.println(name+" inside run "+i);

obj.print(name);

}

}

public class JavaApplication2{

public static void main(String[] args) throws Exception{

PrintValues pv = new PrintValues();

ReadFile r1 = new ReadFile("T1",pv);

ReadFile r2 = new ReadFile("T2",pv);

ReadFile r3 = new ReadFile("T3",pv);

r1.start();r2.start();r3.start();

}

}

Bottom of Form

Lecture5: 2-12-2021

package javaapplication3;

import java.io.\*;

import static java.lang.Math.random;

import java.util.Scanner;

import java.util.logging.Level;

import java.util.logging.Logger;

class ReadFile extends Thread

{

volatile boolean finish;

String nof;

int sum;

int count;

String arr[] = new String[4];

public ReadFile(String nof){

this.nof=nof;

}

public void run() {

String line;

try {

BufferedReader b = new BufferedReader (new FileReader(nof));

while((line=b.readLine())!=null){

for(int i=0;i<4;i++)

{

arr= line.split(" ");

}

for (int i = 1; i < 4; i++) {

sum=0;

sum+=Integer.parseInt(arr[i]);

}

if(sum>50)

count++;

System.out.println(count);

}

finish=true;

b.close();

}

catch(Exception e)

{

}

}

}

public class JavaApplication3 {

public static void main(String[] args)throws Exception

{

ReadFile r1=new ReadFile("d://f1.txt");

ReadFile r2=new ReadFile("d://f1.txt");

ReadFile r3=new ReadFile("d://f1.txt");

r1.start();

r2.start();

r3.start();

while(!r1.finish||!r2.finish||!r3.finish);

System.out.println(r1.count);

System.out.println(r2.count);

System.out.println(r3.count);

}

}

Lecture6:

package javaapplication2;

import java.util.concurrent.\*;

import java.io.\*;

class ReadFile implements Callable <Integer>{

String fname;

public ReadFile(String fname) {

this.fname = fname;

}

public Integer call(){

int sum=0;

try{

BufferedReader buf = new BufferedReader(new FileReader(fname));

String n;

while ((n=buf.readLine())!=null)

sum +=Integer.parseInt(n);

}catch(Exception e){

e.printStackTrace();

}

return sum;

}

}

public class JavaApplication2 {

public static void main(String[] args) throws Exception{

ReadFile r1 = new ReadFile("d:\\1.txt");

ReadFile r2 = new ReadFile("d:\\2.txt");

ReadFile r3 = new ReadFile("d:\\3.txt");

ExecutorService service = Executors.newFixedThreadPool(3);

Future <Integer> x = service.submit(r1);

Future <Integer> y = service.submit(r2);

Future <Integer> z = service.submit(r3);

System.out.println(x.get());

System.out.println(y.get());

System.out.println(z.get());

service.shutdown();

}

}

[**Ayman Rabaya**](https://www.facebook.com/groups/1595951077252374/user/100005320177883/?__cft__%5b0%5d=AZVZTNXSEB0UxIZVsEcV8jKtYgXLwcIMd1KYb-ciOUgGJ-BSOi4u34Gje-n3v6OYbyIx02QJYffyRu3K3YHZ6kWnhUSEiSJBUv0a3b-7aF2whQ1ZIpdxvlphMy4znUfPgwZ8j2TQ5rFjmG40HS8KDgURvrIwM1_icInjv4oNpzIKJ-oUBNHVlCCdEHleyG0bXME&__tn__=R%5d-R)

package javaapplication7;

import java.util.concurrent.\*;

import java.io.\*;

class array implements Callable <Void>{

int s,e,arr[];

public array(int s, int e, int[] arr) {

this.s = s;

this.e = e;

this.arr = arr;

}

public Void call(){

for (int i=s;i<e;i++)

arr[i]=(int)(Math.random()\*100);

return null;

}

}

class maxarr implements Callable <Integer>{

Object O;

int arr[];

int s,e;

public maxarr(int arr[],int s,int e) {

this.arr=arr;

this.e=e;

this.s=s;

}

public Integer call(){

int max=arr[s];

for (int i=s;i<e;i++){

if(arr[i]>max)

max=arr[i];

}

return max;

}

}

public class JavaApplication7 {

public static void main(String[] args) throws Exception{

int a[]=new int[1000];

array t1=new array(0,a.length/2,a);

array t2=new array(a.length/2,a.length,a);

ExecutorService service = Executors.newFixedThreadPool(2);

//ExecutorService service2 = Executors.newFixedThreadPool(2);

Future <Void> x = service.submit(t1);

Future <Void> y = service.submit(t2);

x.get();y.get();

service.shutdown();

maxarr r1=new maxarr(a,0,a.length/2);

maxarr r2=new maxarr(a,a.length/2,a.length);

service = Executors.newFixedThreadPool(2);

Future <Integer> x1 = service.submit(r1);

Future <Integer> y1 = service.submit(r2);

int z,d;

z=x1.get();

d=y1.get();

if(z>d)

System.out.println(z);

else

System.out.println(d);

service.shutdown();

}

}

Lecture7: 9-12-2021

package javaapplication8;

import [java.net.](https://l.facebook.com/l.php?u=http%3A%2F%2Fjava.net%2F%3Ffbclid%3DIwAR3YTDp3abvfoce0BftkY68k4-FPFAYX0UebIghljBIVgKLaT36E5LPmo1c&h=AT0iLKmudn2HR9zNmgMbh0-456XUJdKzgvFT7UPAGdjBiNIhgm9bHch7BgfWgunEB1ZEHAaCB1OrKirRg7ETkEMvz6n7Q-yotdy0f5U4ZQNVk8WTLjbJirstVM0xPLleJGzH&__tn__=-UK-R&c%5b0%5d=AT2AKPt-vLdsY1TjeNRLua_pbu_kKK4Djfz8__pIFk9kvaxrdYMmPS7dsegb5astEG6JQgDUx61OEAO9WFH7F53qpQAwxLazHdUbldB2hPavJd4v2-u9wBgUL0N4EWNsZoLM_LjpFmSAYiYm_wBMr-fe_D1se2V0fbW1fk_kSmO7Eq4U5BHmr1O8fZhvFZy7FXrW-vAWs_cJ)\*;

import java.io.\*;

import java.util.ArrayList;

import java.util.concurrent.\*;

class FindD implements Callable <String>

{

String dName;

public FindD(String name) {

this.dName = name;

}

public String call()

{

String ip="";

ip=dName+" \n "+" ---------- "+"\n";

try{

InetAddress a[]=InetAddress.getAllByName(dName);

for(InetAddress a1:a)

ip=ip+" "+a1.getHostAddress();

}catch(Exception e){}

return ip;

}

}

public class JavaApplication8 {

public static void main(String[] args) throws Exception{

ArrayList <String> as =new ArrayList<String>();

ArrayList <Future> f =new ArrayList<Future>();

ArrayList <FindD> t =new ArrayList<FindD>();

BufferedReader bf=new BufferedReader(new FileReader("d://domin.txt"));

String line;

while((line=bf.readLine())!=null)

as.add(line);

for (int i = 0; i < as.size(); i++)

t.add(new FindD(as.get(i)));

ExecutorService service = Executors.newFixedThreadPool(as.size());

for (int i = 0; i < as.size(); i++)

f.add(service.submit(t.get(i)));

for (int i = 0; i < as.size(); i++)

System.out.println(f.get(i).get());

service.shutdown();

}

}

Lecture8: 15-12-2021

package javaapplication1;

import java.io.\*;

import java.util.\*;

import [java.net.](https://l.facebook.com/l.php?u=http%3A%2F%2Fjava.net%2F%3Ffbclid%3DIwAR2AidEddySGqFj2WtzbGaCEdgmBLhNqNOtKXwerStw-DuwPGvFky1U10ZU&h=AT0iLKmudn2HR9zNmgMbh0-456XUJdKzgvFT7UPAGdjBiNIhgm9bHch7BgfWgunEB1ZEHAaCB1OrKirRg7ETkEMvz6n7Q-yotdy0f5U4ZQNVk8WTLjbJirstVM0xPLleJGzH&__tn__=-UK-R&c%5b0%5d=AT2sxdeWFhb1Zc4_k_yfxyJc3NC46jlnK2VxhEEOA8qM4PqUG7n-X2HIZMi85xwrOYPAKJ03vuu8006abXRk9rMjvJhf5Un0C0D7ij3-sAmIb42riGmt1sU3AnzvRwNWW2hQSkLULw_yeiwae9Z8ZVfj8fAiMOkEzsfXQa0BUQfooMs_Cvzq3XfVkKz44qzehCIvJjBXPXfQ)\*;

public class JavaApplication1 {

public static void main(String[] args) throws Exception {

byte addr[]=new byte[]{(byte)192,(byte)168,1,38};

NetworkInterface ni=NetworkInterface.getByInetAddress(InetAddress.getByAddress(addr));

//185.37.12.3

Enumeration <NetworkInterface>interfaces=NetworkInterface.getNetworkInterfaces();

NetworkInterface inter;

while (interfaces.hasMoreElements()){

inter=interfaces.nextElement();

System.out.println(inter.getDisplayName()+"\n-------------------------------\n");

Enumeration <InetAddress> addresses = inter.getInetAddresses();

while (addresses.hasMoreElements()){

InetAddress add = addresses.nextElement();

System.out.println(add.getHostAddress());

}

}

}

}

Lecture9: 16-12-2021

package javaapplication10;

import [java.net.](http://java.net/?fbclid=IwAR0nXocLtJPOrdFD14fTmqDwh6NOl5-CbsmuMhPl3yiTMr-iOzo80cU3VE0)\*;

import java.io.\*;

import java.util.\*;

import java.util.concurrent.\*;

class FindInterface implements Callable <NetworkInterface>

{

String ipName;

public FindInterface(String name) {

this.ipName = name;

}

public NetworkInterface call()

{

NetworkInterface nI=null;

String s[]=ipName.split("\\.");

byte b[]=new byte[s.length];

for (int i = 0; i <s.length; i++) {

b[i]=(byte)Integer.parseInt(s[i]);

}

try{

InetAddress addrs=InetAddress.getByAddress(b);

nI=NetworkInterface.getByInetAddress(addrs);

}catch(Exception e){e.printStackTrace();}

return nI;

}

}

public class JavaApplication10 {

public static void main(String[] args) throws Exception{

ArrayList <String> ips =new ArrayList<String>();

ArrayList <Future> f =new ArrayList<Future>();

ArrayList <FindInterface> t =new ArrayList<FindInterface>();

BufferedReader bf=new BufferedReader(new FileReader("d://ips.txt"));

String line;

while((line=bf.readLine())!=null)

ips.add(line);

for (int i = 0; i < ips.size(); i++)

t.add(new FindInterface(ips.get(i)));

ExecutorService service = Executors.newFixedThreadPool(ips.size());

for (int i = 0; i < ips.size(); i++)

f.add(service.submit(t.get(i)));

for (int i = 0; i < ips.size(); i++)

System.out.println(f.get(i).get());

service.shutdown();

}

}

Lecture10: 22-12-2021

package javaapplication14;

import [java.net.](https://l.facebook.com/l.php?u=http%3A%2F%2Fjava.net%2F%3Ffbclid%3DIwAR1EmQcOTM-Z3M5YZo9EQCaVBEA4UwgQ3i_GbgEQt1qIixuvnr6PZraqmuo&h=AT0iLKmudn2HR9zNmgMbh0-456XUJdKzgvFT7UPAGdjBiNIhgm9bHch7BgfWgunEB1ZEHAaCB1OrKirRg7ETkEMvz6n7Q-yotdy0f5U4ZQNVk8WTLjbJirstVM0xPLleJGzH&__tn__=-UK-R&c%5b0%5d=AT19EtY00aVEAXTREvMRaBA0nSXdaeBxDokevAFNuJt_lgLsuykGdHGWFHEqe8BRD6GHlYESmZIYYoKJF2sz8qb6F6SBkuQezH5o9r20iMM4CzpAQe6jIG976pDuUAvGlAuhl8rHg1w4n-G9jfWR1FQeRZLhRkySSxOtl_wKie55HpRwMaWQ_SVbElsz6oe2AKqFokN7b28fqoNUiC0)\*;

import java.util.concurrent.\*;

import java.io.\*;

import java.util.ArrayList;

class GetNetworkInterface implements Callable<String>

{

String ip;

public GetNetworkInterface (String ip)

{

this.ip=ip;

}

public String call(){

try{

String temp[]=ip.split("\\.");

byte address[]=new byte[4];

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

address[i]=(byte)(Integer.parseInt(temp[i]));

InetAddress w=InetAddress.getByAddress(address);

NetworkInterface in= NetworkInterface.getByInetAddress(w);

return in.getDisplayName();

}

catch(Exception e)

{

return null;

}

}

}

public class JavaApplication14 {

public static void main(String[] args) throws Exception{

GetNetworkInterface t1 =new GetNetworkInterface ("180.145.2.3");

//t1.call();

BufferedReader buf=new BufferedReader (new FileReader("e:\\q.txt"));

ArrayList <String> ipAddress = new ArrayList<String>();

String data;

while((data=buf.readLine())!=null)

ipAddress.add(data);

buf.close();

System.out.println(ipAddress);

ArrayList <Future> results=new ArrayList <Future>();

ArrayList<GetNetworkInterface> objects =new ArrayList<GetNetworkInterface>();

for(int i=0;i<ipAddress.size();i++){

objects.add(new GetNetworkInterface(ipAddress.get(i)));

// Future r=service.submit(temp);

// results.add(r);

}

ExecutorService service=Executors.newFixedThreadPool(ipAddress.size());

for (int i=0;i<ipAddress.size();i++){

results.add(service.submit(objects.get(i)));}

for (int i=0;i<results.size();i++)

System.out.println((String)results.get(i).get());

}

}

Lecture11: 23-12-2021

package javaapplication2;

import java.io.\*;

import [java.net.](http://java.net/?fbclid=IwAR1SUyITS3f4ZicLLuRJ7wMBxThVIwqnWjRpcMze0ZYqMbAYTvJ3R1PcAI8)\*;

import java.util.ArrayList;

public class JavaApplication2 {

public static void main(String[] args) throws Exception{

/\*

URL url = new URL("https://ahmad@[google.com:8750/news/sport/view.aspx?n=4&g=w](https://l.facebook.com/l.php?u=https%3A%2F%2Fgoogle.com%3A8750%2Fnews%2Fsport%2Fview.aspx%3Fn%3D4%26g%3Dw%26fbclid%3DIwAR2CEW-X2vNnZUeMQzjCBsGPMsAJO5YGSW4EuOsvqQivdNp99TEBIABEniI&h=AT1v5NfGtsnX_BOm850FCSTNhnDbJ25kPoS_uskc__vksXFG7W829JT5xMKmC3jdGKsRq5nJBONMPJbyLmvA2pCie0mvnXlqhMOdTzoa6vfEAGUL6X7WIPgMVypmFdpih9t8&__tn__=-UK-R&c%5b0%5d=AT0QM2E4-HgBiUuU513ByZMObYvY8erJfwENs2vCVy5WdnmJrsS8JDxxlUmQEvIwAqvji3I2Byw9_DNN16nwLz_0vwLEyOPb2DD_tfqDpE6aV5g4IDmAbn1zbiaYWw6WoR56PVifHLfyq-XqKu5qiOHBbFOmQEyRCP_UoMFQR1UNX_z4V00svdGDfJpsYvN5nPHhodJ9hPH4g83zxTI)");

System.out.println(url.getAuthority());

System.out.println(url.getHost());

System.out.println(url.getPath());

System.out.println(url.getPort());

System.out.println(url.getUserInfo());

System.out.println(url.getQuery());

URL url2=new URL(url,"exams/midterm/nwp.doc");

System.out.println(url2);

URL url3=new URL("http","[www.yahoo.com](https://l.facebook.com/l.php?u=http%3A%2F%2Fwww.yahoo.com%2F&h=AT20Ym30XvGpRj23jSYvPK2q56zdUqzVTpU-FR2FiN8liG4NJJpAdbGYrbrcwL6G5-g_ocMRNVQWavfAwNhkrmdcDUnqy6slfYcWmy1tFB42q_qX3YgpVt3D1zkgDqrU872x&__tn__=-UK-R&c%5b0%5d=AT0QM2E4-HgBiUuU513ByZMObYvY8erJfwENs2vCVy5WdnmJrsS8JDxxlUmQEvIwAqvji3I2Byw9_DNN16nwLz_0vwLEyOPb2DD_tfqDpE6aV5g4IDmAbn1zbiaYWw6WoR56PVifHLfyq-XqKu5qiOHBbFOmQEyRCP_UoMFQR1UNX_z4V00svdGDfJpsYvN5nPHhodJ9hPH4g83zxTI)","/news/view.aspx.v=4");

System.out.println(url3);

URL url4=new URL("http","[www.yahoo.com](https://l.facebook.com/l.php?u=http%3A%2F%2Fwww.yahoo.com%2F&h=AT20Ym30XvGpRj23jSYvPK2q56zdUqzVTpU-FR2FiN8liG4NJJpAdbGYrbrcwL6G5-g_ocMRNVQWavfAwNhkrmdcDUnqy6slfYcWmy1tFB42q_qX3YgpVt3D1zkgDqrU872x&__tn__=-UK-R&c%5b0%5d=AT0QM2E4-HgBiUuU513ByZMObYvY8erJfwENs2vCVy5WdnmJrsS8JDxxlUmQEvIwAqvji3I2Byw9_DNN16nwLz_0vwLEyOPb2DD_tfqDpE6aV5g4IDmAbn1zbiaYWw6WoR56PVifHLfyq-XqKu5qiOHBbFOmQEyRCP_UoMFQR1UNX_z4V00svdGDfJpsYvN5nPHhodJ9hPH4g83zxTI)",21,"/news/view.aspx.v=4");

System.out.println(url4);

URL u=new URL("[https://www.aaup.edu](https://l.facebook.com/l.php?u=https%3A%2F%2Fwww.aaup.edu%2F%3Ffbclid%3DIwAR1pZyK9U3xgPusej7omLghukSuuHzlsD4Zff7_9WmgSgCWBxHNyDgULmgc&h=AT0sE2S0jOkUoSoHktW64dTczE4D4wK84yX1GCG3eKZh_nGNCfETOcDGNaAjSAVpGWCzrzxXJ64rclE15qmZ9jOGejj3eJvPcJKZSoEvg2PhWYmFECNoizDl53TuuA4nkWfr&__tn__=-UK-R&c%5b0%5d=AT0QM2E4-HgBiUuU513ByZMObYvY8erJfwENs2vCVy5WdnmJrsS8JDxxlUmQEvIwAqvji3I2Byw9_DNN16nwLz_0vwLEyOPb2DD_tfqDpE6aV5g4IDmAbn1zbiaYWw6WoR56PVifHLfyq-XqKu5qiOHBbFOmQEyRCP_UoMFQR1UNX_z4V00svdGDfJpsYvN5nPHhodJ9hPH4g83zxTI)") ;

/\* BufferedInputStream bufs = new BufferedInputStream(u.openStream());

byte data[]=new byte[1024] ;

while ((bufs.read(data))!=-1)

System.out.println(new String(data));

bufs.close();

\*/

ArrayList<String>links=new ArrayList<String>();

ArrayList <URL> urls = new ArrayList<URL>();

ArrayList<BufferedReader>buffers = new ArrayList<BufferedReader>();

try{

BufferedReader buf = new BufferedReader(new FileReader("D://domains.txt"));

String line;

while((line=buf.readLine())!=null)

{

links.add(line);

urls.add(new URL(line));

}

for (int i = 0; i < urls.size(); i++) {

String data;

buffers.add(new BufferedReader(new InputStreamReader(urls.get(i).openStream())));

while((data=buffers.get(i).readLine())!=null)

{ System.out.println(data); }

buffers.get(i).close();

}

}

catch(Exception e){}

}

}

Lecture12: 30-12-2021

package javaapplication1;

import java.awt.image.BufferedImage;

import java.io.\*;

import [java.net.](http://java.net/?fbclid=IwAR1EmQcOTM-Z3M5YZo9EQCaVBEA4UwgQ3i_GbgEQt1qIixuvnr6PZraqmuo)\*;

import javax.imageio.ImageIO;

public class JavaApplication1 {

static String getRate(String c1, String c2)throws Exception{

URL url = new URL("[https://www.x-rates.com/calculator/?from=](https://l.facebook.com/l.php?u=https%3A%2F%2Fwww.x-rates.com%2Fcalculator%2F%3Ffrom%26fbclid%3DIwAR2C4_ustwC_oNIKAPYcwShx5wSEHNdd_5SEOjQfZuXrFk_PS648cQxKC1k&h=AT3PI3ThX6yb_UuTWMcbpavMQREQ6l6CHEwksPnCpoRM7cW-Cn824RdF0zgmuhzDJWDAw-aV6fMolGiESuNC4-MK-Qm_mYRpUp2cO4xHD1gwN5gYLHJGS294uDCNY1FuizJ2&__tn__=-UK-R&c%5b0%5d=AT0e-dC_SB_Bp1x7luKf3TYfkrCXlp8Ky1CPCPg6ceHdaXgUjy3c5ER-SpYrSAuVs87ZWx-femIXaTZaTKXsBd-MNKIZGlQt8rp_NO3PNlbVZSWtozP6iLErwWDFQf9Pe-ze-Bm-Le3_uAGQOVH8ZiwWhUcpsu7ul-SqjI-PgRx_UJBo1YmZbLnw3R9Q1nbAAabvABooNkoQ_TJiNRBKhdbWaac)"+c1+"&to="+c2+"&amount=1");

BufferedReader buf = new BufferedReader(new InputStreamReader(url.openStream()));

String line;

while ((line=buf.readLine())!=null)

if (line.contains("ccOutputRslt"))

return line.substring(line.indexOf(">")+1,line.indexOf("<span class=\"ccOutputTrail"));

return null;

}

public static void main(String[] args) throws Exception{

//System.out.println(getRate("EUR","ILS"));

URL url = new URL("[https://www.aaup.edu/.../slide.../public/AAUJ-to-AAUP-en.jpg](https://l.facebook.com/l.php?u=https%3A%2F%2Fwww.aaup.edu%2Fsites%2Fdefault%2Ffiles%2Fstyles%2Fslideshow%2Fpublic%2FAAUJ-to-AAUP-en.jpg%3Ffbclid%3DIwAR2CEW-X2vNnZUeMQzjCBsGPMsAJO5YGSW4EuOsvqQivdNp99TEBIABEniI&h=AT1NtApwVA_Q8wLa3lwtDFYobe--sXiW-k4VJlGUKOFwXbEoxomAA5grB7iYHyG6RQ3K9Q1BnOkMpqWe0IOpcSVHD3_pCzBUrjHAG6pOXTTeIz7tvN_WboOEGjRJi2YMhY_5&__tn__=-UK-R&c%5b0%5d=AT0e-dC_SB_Bp1x7luKf3TYfkrCXlp8Ky1CPCPg6ceHdaXgUjy3c5ER-SpYrSAuVs87ZWx-femIXaTZaTKXsBd-MNKIZGlQt8rp_NO3PNlbVZSWtozP6iLErwWDFQf9Pe-ze-Bm-Le3_uAGQOVH8ZiwWhUcpsu7ul-SqjI-PgRx_UJBo1YmZbLnw3R9Q1nbAAabvABooNkoQ_TJiNRBKhdbWaac)");

if (url.getContent().getClass().getName().contains("Image"))

{

BufferedImage img= ImageIO.read(url);

if (ImageIO.write(img, "jpg", new File ("e:\\aaup.jpg")))

System.out.println("DONE..");

else

System.out.println("unknown error!");

}

}

}

Lecture13: 5-1-2022

package javaapplication5;

import java.io.\*;

import [java.net.](http://java.net/?fbclid=IwAR2C4_ustwC_oNIKAPYcwShx5wSEHNdd_5SEOjQfZuXrFk_PS648cQxKC1k)\*;

public class JavaApplication5 {

public static void main(String[] args) throws Exception{

URL url = new URL("[https://file-examples-com.github.io/.../file\_example\_MP4...](https://l.facebook.com/l.php?u=https%3A%2F%2Ffile-examples-com.github.io%2Fuploads%2F2017%2F04%2Ffile_example_MP4_1920_18MG.mp4%3Ffbclid%3DIwAR3DMh_LBCx9gMliZANa2fEetcryZ--uiV5PkmawTsrIGjQpZCbvAx-DVDE&h=AT3a4bHPO0UmNbNASbtZ_OFmP1441WrYdlw2m1FisrwwUxZwRVVbmnwAsesHn3co38maKaxX4n8osQgmdnEGZ_lwZuxQaM5zCs85asJ1mohBL0ANf-hQQttxyUSBwTvsWg76&__tn__=-UK-R&c%5b0%5d=AT1dl6Y4LLOmM02U5qfewXPDvfDZDujvYnUwom4IjT6vqkJFWTcgH6gu2b6aZrbqnP6m3nsqLfE2Uxdqw4xfeVgH59thq-pbXXkX2Ccdu3DBpLpGpMQLc8DspTDV1VM7LcWN8l0VZtYINg_RbV3NVqrKB_0t9AzlWCaAEATDi5Q0m1uol0_gac5QlXxb2X16JdWitLiUw_ga)");

BufferedInputStream bufs = new BufferedInputStream(url.openStream());

BufferedOutputStream bufw = new BufferedOutputStream(new FileOutputStream("e:\\samplev.mp4"));

System.out.println(url.getContent().getClass().getName());

byte arr[]=new byte[1024];

int data;

while ((data=bufs.read(arr))!=-1)

{

bufw.write(arr, 0, data);

}

bufw.close();

}

}

Lecture14: 6-1-2022

package javaapplication2;

import java.awt.image.BufferedImage;

import java.io.\*;

import [java.net.](http://java.net/?fbclid=IwAR0TxPFUJgdVLG5ZY-Am5XIGEV9ILMEQS7UoOOU0SEG9pdhjMNXpVaunlfA)\*;

import java.util.ArrayList;

import java.util.concurrent.Callable;

import java.util.concurrent.ExecutorService;

import java.util.concurrent.Executors;

import java.util.concurrent.Future;

import javax.imageio.ImageIO;

class Find implements Callable <String>{

String data;

public Find(String data){

this.data=data;

}

public String call() throws Exception{

URL url = new URL(data);

if(url.getContent().getClass().getName().contains("Image")){

BufferedImage m= ImageIO.read(url);

ImageIO.write(m, "jpg", new File("d:\\image"));

}

if(url.getPath().contains(".mp4")){

BufferedInputStream bufs = new BufferedInputStream(url.openStream());

BufferedOutputStream bufw = new BufferedOutputStream(new FileOutputStream("d:\\samplev.mp4"));

byte arr[]=new byte[1024];

int data;

while ((data=bufs.read(arr))!=-1)

{

bufw.write(arr, 0, data);

}

bufw.close();

}

return null;

}

}

public class NewClass {

public static void main(String[] args) {

try{

ArrayList <String> link=new ArrayList<String>();

ArrayList<Find> give=new ArrayList<Find>();

ArrayList <Future> a1=new ArrayList<Future>();

BufferedReader buf=new BufferedReader(new FileReader("d:\\links.txt"));

String data;

while((data=buf.readLine())!=null){

link.add(data);

// System.out.println(data);

}

for(int i=0;i<link.size();i++){

give.add(new Find(link.get(i)));

}

ExecutorService service=Executors.newFixedThreadPool(link.size());

for (int i=0;i<link.size();i++){

a1.add(service.submit(give.get(i)));

}

service.shutdown();

}catch(Exception e){e.printStackTrace();}

}

}

Lecture15:

Lecture16:

Lecture17:

Lecture18:

Lecture19:

Lecture20: