How to Create an Executable JAR File

- 1. Right click on the name of the package in the Package Explorer
- 2. Click Export... Name of the class to Name of the package to use in use in step 4, page 4 step 4, page 4 Java - Program1/src/CSC120/Coins.java - Eclipse - O X File Edit Source Refactor Navigate Search Project Run Window Help 8 📑 - 🗌 🖻 🗄 🕸 - 🚺 - 🍇 - 🗄 🖽 🎯 🖄 😂 🅖 🗊 🗐 👔 🗄 🧏 - 🏷 🔶 -😭 🐉 Java - -- 8 🖵 🗖 🚺 Coins.java 🛛 🗄 Outline 🛛 増 Package Explorer 🕺 package CSC120; 📲 😿 🖋 🛛 E \$ 69 69 🕀 📂 Program1 CSC120 ▶ *: New ■ G Coins Go Into • o ^{\$} main(String[]) : void Open in New Window void main(String[] args) ([] Open Type Hierarchy F4 Alt+Shift+W Show In • Name [Сору Ctrl+C of the 눹 Copy Qualified Name package Ctrl+V 💼 Paste 💢 Delete Delete 🕭 Remove from Context Ctrl+Alt+Shift+Down Build Path Source Alt+Shift+S . Refactor Alt+Shift+T 🚵 Import... 🛃 Export... 🔗 Refresh F5 Close Project Assign Working Sets... claration 📃 Console 🛛 📃 🗶 🍇 🕞 🚮 🗐 🚝 🛃 - 🗂 🗖 Run As ۲ on] C:\Program Files\Java\jre6\bin\javaw.exe (Sep 22, 2010 9:08:31 AM) Debug As ۲ nt (example 4.83): 1.16 ^ Validate the following: Team Compare With Restore from Local History. Alt+Enter Properties * Program1 Export...

3. If necessary, click the + next to Java to expand the list then select **Runnable JAR file**

🗢 Export				_ 🗆 🖂
Select Export all resources required to run an	application ir	ito a JAR file on t	he local file syste	m. 🛆
Select an export destination:				
type filter text				
General Java Javadoc Javadoc Runnable JAR file Run/Debug Composition Tasks Composition XML				
?	< <u>B</u> ack	<u>N</u> ext >	Einish	Cancel

- 4. Click the drop-down list box under Launch configuration: in the Runnable JAR File Export dialog box (*image on next page*)
- 5. Select the Class file
- 6. Click the **Browse...** button and choose the **Export destination**:

	Runnable JAR File Export	_ 🗆 🛛
Name of the jar file to use in step 4, page 4	Runnable JAR File Specification Select a 'Java Application' launch configuration to use to create a runnable JAR.	, C
step 4, page 4	Launch configuration: Coins - Program1 Export destination: C:\Courses\CSC120\Fall2010\Program1.jar Library handling: ② Extract required libraries into generated JAR ③ Package required libraries into generated JAR ③ Copy required libraries into a sub-folder next to the generated JAR ③ Save as ANT script ANT script location:	Browse
	Sack Next > Finish	Cancel

7. Enter a name for the JAR file



- 8. Click the **Save** button
- 9. Click the **Finish** button in the **Runnable JAR File Export** dialog box

Running an executable JAR from command-line

- 1. From Windows click the Start button
- 2. Choose Run from the menu
- 3. Enter cmd in the Run dialog-box

Run	? 🔀
-	Type the name of a program, folder, document, or Internet resource, and Windows will open it for you.
Open:	cmd 💌
	OK Cancel <u>B</u> rowse

At the command prompt, change to the directory (folder) containing the jar file (Note: the path is the same as specified in the Export destination on page 3)
cd "c:\courses\csc120\fall2010"

Enter the command to execute the jar file as follows:			
java -classpath pack	kage.Classname -jar	nameOfJarFile	
package (see page 1) Class Name (see page 1)	Jar File (see page 3)	

5. Enter the command to execute the jar file:

java -classpath csc120.Coins -jar Program1.jar

Command Prompt	- 🗆 🗙
C:\Courses\CSC120\Fall2010>java -classpath csc120.Coins -jar Program1.jar Please enter the amount (example 4.83): 1.16 1.16 is equivalent to the following: 4 quarters 1 dimes 1 nickels 1 pennies	
*** End of Program ***	
C:\Courses\CSC120\Fall2010>	
	-

Setting the Classpath and Path Environment Variables

1. Open My Computer or Windows Explorer and find the folder (directory) C:\Program Files\Java

Note the name of the *jdk* directory (example below: jdk1.6.0_18)



2. Go to the command line and enter the command: *set path* See steps 1 thru on page 4

Select Command Prompt	¢
C:\Courses\CSC120\Fall2010>set path Path=C:\android-sdk-windows\tools;C:\Program Files\Windows Resource Kits\Tools\; C:\Program Files\Common Files\Microsoft Shared\Windows Live;C:\Program Files\Sup port Tools\;C:\watcom-1.3\binnt;C:\watcom-1.3\binw;C:\SysInternals;C:\WINDOWS\sy stem32;C:\WINDOWS;C:\WINDOWS\System32\Wbem;C:\Program Files\Microsoft Network Mo nitor 3\;C:\Program Files\MFP Utility\OpenAPI_SDK\V2_0_3;C:\PROGRA~1\CISCOS~1\CI SCOS~1\bin;C:\Program Files\Smart Projects\IsoBuster;C:\Program Files\Windows Im aging\;C:\Program Files\Java\jdk1.6.0_18\bin;C:\WINDOWS\system32\WindowsPowerShe 11\v1.0;C:\Program Files\QuickTime\QTSystem\;C:\Program Files\Common Files\Micro soft Shared\Windows Live;G:\MASM61\bin;G:\emacs-21.2\bin;G:\djgpp\bin PATHEXT=.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;.JSE;.WSF;.WSH;.PSC1 C:\Courses\CSC120\Fall2010>_	
	-1

3. If the path to the JDK is listed, you can ignore the rest of the document below.

 Click the Start button, click Run, type sysdm.cpl in the Run dialog-box or click the Start button, select Control Panel, double click the System button in the Control panel

	System Propertie	9\$? 🔀	
	System Resto	re Automa	atic Updates	Remote	
	General	Computer Name	Hardware	Advanced	
	You must be logg Performance Visual effects, p	ged on as an Administra processor scheduling, m	tor to make most of emory usage, and v	these changes. irtual memory	Advanced tab
			(<u>S</u> ettings	
	Desktop setting	s related to your logon			
			(S <u>e</u> ttings	
	System startup,	covery system failure, and deb	ugging information		
			(Se <u>t</u> tings	
Enviro <u>n</u> ment Variables button		Enviro <u>n</u> ment Vari	iables E <u>r</u> ror	Reporting	
		 OK	Cancel		

- 5. Click the **Advanced** tab at the top of the **System Properties** dialog-box
- 6. Click the **Environment Variables** button
- In the <u>User variables</u> section, make sure there is a *classpath* variable with a *period* as its value, if not click the New button and create a new variable called *classpath* with a *period* as its value

	Environment Vari	ables 🔹 👔
	<u>U</u> ser variables for g	jrahamf
	Variable	Value
	classpath	
<u>U</u> ser classpath	DJGPP FullName HOME	G:\DJGPP\DJGPP.ENV MATGRAHAMFB3041 j:\
variable	path	C:\Program Files\Common Files\Microsof 💌
	<u>System variables</u>	New Edit Delete
	Variable	Value
	PANGO WIN32	, anything
	Path	C:\android-sdk-windows\tools;C:\Progr
	PATHEXT	.COM;.EXE;.BAT;.CMD;.VBS;.VBE;.JS;
System	PROCESSOR_A	, X86
path variable	PROCESSOR_ID.	Ne <u>w</u> Edit Delete
		OK Cancel

8. In the **System variables** section, scroll down and click on the *path* variable

9. Click the **Edit** button

10. Scroll through the variable value to find the path for the java command line files (see first picture on page 5)If the path is not there, add the path at the beginning of the variable value followed by a *semi-colon*

Edit System Variable 🔹 💽 🔀		
Variable <u>n</u> ame:	Path	
Variable <u>v</u> alue:	\;C:\Program Files\Java\jdk1.6.0_18\bin;C	
	OK Cancel	