نويسنده : يوسف سليماني

دانشجوی کارشناسی مهندسی نرم افزار دانشگاه آزاد واحد تهران شرق

کامپایل برنامه جاوا از طریق CMD ویندوز

برای اجرای برنامه جاوا با استفاده از CMD ویندوز ، ابتدا باید برنامه خود را از طریق Notepad نوشته و با پسوند java. ذخیره نمایید

helloworld.java	
helloworld.java - Notepad	
File Edit Format View Help	
<pre>public class helloworld { public static void main(String[] args) { System.out.println("Hello world!!!"); } }</pre>	*
	*

تایپ کد زیر در برنامه Notepad :



حالا برنامه را با پسوند java. ذخیره نمایید

نکته مهم : حتما نام کلاس یا نام فایلی که ذخیره نموده اید یکی باشد در غیر این صورت جاوا به شما پیغام خطا می دهد در اینجا نام فایل ما helloworld است و باید نام کلاس هم helloworld باشد

برنامه ی شما حالا آماده کامپایل است . قبل از اجرای کامپایل باید برنامه JDK را ازسایت اوراکل دانلود نمایید

لینک سایت : <u>https://www.oracle.com/java/technologies/javase-jdk8-downloads.html</u>

با توجه به معماری ویندوز نصب شده روی سیستم ، 32bit یا 64bit را انتخاب نمایید

C oracle.com/java/	technologies/javase-jdk8-downloads.html		See 2		
Solaris SPARC 64	1-bit (SVR4 package)	133.01 MB	idk-8u241-solaris-sparcv9.tar.Z		
Solaris SPARC 64	1-bit	94.24 MB	idk-8u241-solaris-sparcv9.tar.gz		
Solaris x64 (SVR	4 package)	133.8 MB	jdk-8u241-solaris-x64.tar.Z		
Solaris x64		92.01 MB	jdk-8u241-solaris-x64.tar.gz		
Windows x86		200.86 MB	idk-8u241-windows-i586.exe		
Windows x64		210.92 MB	jdk-8u241-windows-x64.exe		
Java SE Devel Demos and samples with demos and samp This software is licen	opment Kit 8u241 Demos of common tasks and new functionality ples for the JDK is meant to illustrate the sed under the Oracle BSD License	and Samples Downloads available on JDK 8. JavaFX 8 demos and samples are included in th a usage of a given feature or technique and has been deliberately si	e JDK 8 Demos and Samples packages. The source code prov mplified.	ided	
This solutione is neer					

بعد از اجرای برنامه دانلود شده، روی My Computer راست کلیک کرده و گزینه properties را انتخاب نمایید. وارد صفحه ای می شوید قسمت چپ سمت بالا لینک system properties را انتخاب نمایید

Control Panel Home	View basic infor	mation about your computer
Device Manager	Windows edition	
Remote settings	Windows 7 Ultim	ate
System protection	Copyright © 2009	9 Microsoft Corporation. All rights reserved.
Advanced system settings	Service Pack 1	
	System	
	Rating:	P.F. Windows Experience Index
		THE REPORT OF THE PARTY OF THE

پنجره ای به شکل زیر باز می شود

	Hardware	Advanced	System Protection	Remote
You must be lo	gged on as a	an Administra	tor to make most of th	nese changes.
Performance				
Visual effects	processor s	cheduling, m	emory usage, and vir	tual memory
				843-1294-1392-1383-1
				Settings
User Profiles				
Desktop settir	ngs related to	o your logon		
			<u></u>	
				Settings
Startup and R	ecovery			
System startu	p, system fai	lure, and deb	ugging information	
			_	
			2	Settings
			4	
			Environme	nt Variablee
			Environme	nt Variables

سربرگ Advanced را انتخاب و بعد روی دکمه environment variables کلیک نمایید

در قسمتSystem variables روی path دوبار کلیک کرده تا پنجرهی جدید باز شود داخل کادر مورد نظر با اضافه کردن سیمیکالن (;) آدرس پوشه (bin) فایل JDK را کپی کرده و دکمه OK کلیک نمایید طبق استاندارد فایل JDK در آدرس زیر ذخیره می شود :

ice M	New Heaters Advanced Coder Deterior Dents	Environment Variables	
tem p Perfo	r rame narowe provance system microcon president ust be logged on as an Administrator to make most of these changes. mance al effects, processor scheduling, memory usage, and virtual memory Settings	User variables for it Variable for it GOOGLE_DEFA no GOOGLE_DEFA no Fatti TEXP SULSEPERAUMORFLESVavalytist.8.0.122(bin TEXP SULSEPERAUMORFLESVavalytist.8.0.122(bin Variable name: Path Variable name: Path Variable name: Path Variable name: Variable name: Path	P
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Start	up and Recovery and adupt, system failure, and debugging information Settings	Visition Vindows_JNT OS Vindows_JNT Path C: Program Files (0.66) (Common Files (0) PATHEXT COME_DES_BAT; CMD; VBS; VBE; JS; PROCESSOR A MD64 Herw Edit	
	OK Cancel Apply	OK Cancel	😵 Change settin
	Windows activation - Windows is activated Product ID: 00426-0EM-8992662-00173		Sittler Senune Microsoftware

توجه مهم : شماره ورژن (1.8.0_1.72) مربوط به JDK متغییر است و بستگی به آخرین دانلود ، از سایت اوراکل دارد. مجددا در قسمت user variables for it دکمه New را کلیک کرده و در قسمت variable name نوشته شود : PATH و در کادر variable value مجددا آدرس یوشه (bin) فایل JDK را کپی کنید و دکمه OK را کلیک نمایید

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2 2	Vict 32 Environment Variables 32 Variables for it 1 Vocade_ptPAR 0 Vocade_ptPAR 0 <th>Edit User Vandele Edit Wardele Invent: Edit Handle Inder: Chings on PercUnardy&1.8.6, 17(2) Con Caroot</th> <th></th> <th></th>	Edit User Vandele Edit Wardele Invent: Edit Handle Inder: Chings on PercUnardy&1.8.6, 17(2) Con Caroot		
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C:\Program Files\Java\jdk1.8.0_172\bin

بعد از انجام مراحل بالا برای اجرای برنامه نوشته شده به زبان جاوا صفحه CMD را اجرا نموده و وارد پوشه ای که برنامه جاوا در آن ذخیره شده است ، می شوید با دستور cd می توانید در بین پوشه های ویندوز حرکت کنید

توجه مهم : در ابتدای اجرای برنامه CMD با ادرس پیش فرض مواجه می شوید که با اجرای دوبار دستور .. cd به پوشه اصلی ویندوز ، درایور C وارد می شوید در آن قسمت یک فولدر به نام java ایجاد نمایید و برنامه نوشته شده جاوا را در آن قسمت ذخیره نمایید حال با دستور cd java به پوشه مورد نظر وارد می شوید و با دستور dir محتویات پوشه نمایش داده می شود

Administrator: C:\Windows\system32\cmd.exe	
Microsoft Windows [Version 6.1.7601] Copyright (c) 2009 Microsoft Corporation. All rights reserved.	
C:\Users\it.cd	
C:\Users)cd	
C:\cd java	
C:\java <mark>}dir</mark> Volume in arive C has no label. Volume Serial Number is 0C81-2FE9	
Directory of C:\java	
03/14/2020 09:35 AM (DIR) 03/14/2020 09:35 AM (DIR) 03/14/2020 02:03 AM 116 helloworld.java 1 File(s) 116 pyres 2 Dir(s) 44,186,230,784 byres free	
C:\java>	

برای صحت نصب دقیق برنامه جاوا ، در صفحه CMD دستور java را تایپ و بعد اجرا نمایید در زمان اجرای دستور java باید پیغام زیر برای شما در CMD نمایش داده شود

<pre>medi Java [Coptions] class [args] or jung [Coptions] class [args] (se execute a jar [ile] args [ile] [i</pre>	Meeres it Siava	
<pre>G Generation (Lass) G G Generation (Lass) G G G G G G G G G G G G G G G G G G G</pre>	age: java L-opt	ions] class [args]
<pre>dr</pre>	(to es	ecute a class)
<pre>set optimis include: J-hit data model if available data to a J-hit data model if available to data to a short the "server" UN the data if is server. - The data if is server. The print this fratter is deprecated and vill be removed is a future release. - print this fratter is deprecated and vill be removed is a future release. - print this fratter is deprecated and vill be removed is a future release. - print this fratter is server. - The print this fratter is deprecated and vill be removed is a future release. - print this fratter is deprecated and vill be removed is a future release. - print this fratter is server. - data if data leaver. - data if data leaver. -</pre>	or Java L-opt	contra jar file)
<pre></pre>	ere options inc	lude:
<pre>""""""""""""""""""""""""""""""""""""</pre>	-d32	use a 32-bit data model if available
<pre>the default On its server. the default of the treatories and ity/ar files) chargeth (lass search path of directories and radiants) if 21P*eted its of directories and radiants) = 0 came) <colored and="" directories="" radiants)<br="" the="" to="">= 0 came) <colored and="" directories="" radiants)<br="" the="" to="">= 0 came) <colored and="" directories="" radiants<br="" the="" to="">= 0 came and the directories and radiants = 0 came and the directories and directories and the dir</colored></colored></colored></colored></colored></colored></colored></colored></colored></colored></pre>	-db4	use a 64-bit data model if available
<pre>cc class search path of directories and sip/ar files) -chaspath Class search path of directories and sip/ar files) _ has been class search path of directories and sip/ar files) _ and 21P excluses to search for class files. </pre>		The default VM is server.
<pre>Chargesth (Class search path of directories and singlest (lise) Changesth (Class search path of directories and singlest (lise) Change</pre>	-cp (class se	arch path of directories and zip/jar files>
<pre>ndd 21P workload to an architight bilast files. Pocamab/coulds; uerbos:(clastig; [n]: uerbos:(clastig; [n]: is fatter erports; is fatter ereleas. is erele</pre>	-classpath <c< td=""><td>lass search path of directories and zip/jar files></td></c<>	lass search path of directories and zip/jar files>
-Roamb-voalmb; -Roamb-voalmb; version: class of ani mention of ani version: class of ani -Roamb-voalmb; -Roamb, -Roamb		and ZIP archives to search for class files.
<pre>-verbosci(</pre>	-D(name)=(val	ue>
<pre></pre>		set a system property
<pre>-uersion print product version and exit -uersion(sculps)</pre>	-vernose:Lcla	enable verbose output
	-version	print product version and exit
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<pre></pre>	-jre-restrict	-search -no-jre-restrict-search
<pre>includy/colude user private JREs in the userion search</pre>		Warning: this feature is deprecated and will be removed
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<pre>-3 -3 -3 -3 -3 -3 -3 -3 -3 -3 -3 -3 -3 -</pre>	-? -help	print this help message
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<pre>dat(packagenoms); (icidenoms); dat(packagenoms); dat(packagenoms); esa : -neble sections with specified granularity diskb sections dat / -disable sections data /</pre>	-eat - package	inns[:(packagenane) :(classnane)]
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Visers'\{t}_	e details.	
	\Users\it>_	

همچنین برای تست دستور کامپایل جاوا باید دستور javac را در صفحه CMD تایپ و اجرا نمایید در زمان اجرای دستور javac باید پیغام زیر برای شما در CMD نمایش داده شود

Administrator: C:\Windows\system3	Z/CMD.exe
Microsoft Windows [Version	6.1.76011
Copyright (C) 2009 Hicrosof	t Corporation. Hil Pights reserved.
C:\Users\it>javac	
Usage: javac <options> <sou< th=""><th>arce files></th></sou<></options>	arce files>
where possible options incl	Commente all debunders infe
-g'pope	Concepte no debugging info
-g:(lines.vars.source)	Generate only some debugging info
-nowarn	Generate no warnings
-verbose	Output messages about what the compiler is doing
-deprecation	Output source locations where deprecated APIs are u
sed	Specify where to find user class files and appotati
on processors	opectry mere to rind date cidas rites and amotaci
-cp <path></path>	Specify where to find user class files and annotati
on processors	
-sourcepath <path></path>	Specify where to find input source files
-nootclasspath (path)	Override location of installed extensions
-endorseddire (dire)	Override location of endorsed standards nath
-proc:(none,only)	Control whether annotation processing and/or compil
ation is done.	the second s
-processor <class1>[_<class1>]</class1></class1>	ss2>, <class3>] Names of the annotation processors</class3>
to run; bypasses default di	scovery process
-parameters	Generate netadata for reflection on method paramete
PS PRIME COYS	denerate necadata for refrection on nechoa paranete
-d (directory)	Specify where to place generated class files
-s (directory)	Specify where to place generated source files
-h (directory)	Specify where to place generated native header file
-implicit:(none.class)	Specify whether or not to generate class files for
implicitly referenced files	
-encoding (encoding)	Specify character encoding used by source files
-source <release></release>	Provide source compatibility with specified release
-target (release)	Generate class files for specific UM version
-profile (profile)	Check that API used is available in the specified p
rofile	
-version	Version information
-help	Print a synopsis of standard options
-X	Print a synonsis of nonstandard ontions
-J(flag)	Pass (flag) directly to the runtime system
-Werrer	Terminate compilation if warnings occur
E <filename></filename>	Read options and filenames from file
and the second	
C:\lloame\it>	
01 100010 1107	

زمان کامپایل برنامه جاوا فرا رسید به پوشه java که در درایو C ایجاد شده بود ، وارد شوید و دستور زیر را اجرا نمایید :

Javac helloworld.java

بعد از اجرای دستور بالا حتما باید فایلی با همان نام و لی با پسوند class. ایجاد شده باشد در غیر این صورت در اجرای مراحل قبل اشتباهی رخ داده است و مجددا مراحل نصب را بررسی نمایید

حالا برنامه جاوا برای اجرا آماده شده است در همان پوشه java درایو C ، دستور زیر را اجرا نمایید :

Java helloworld

روی صفحه CMD نوشته می شود :

Hello world!!!

اولين برنامه جاوا با موفقيت براي شما اجرا شد

موفق و پیروز باشید

