WA2098 Programming Java SOAP and REST Web Services - WebSphere 8.5 / RAD 8.5

Classroom Setup Guide

Web Age Solutions Inc.

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Part 1 - Minimum Hardware Requirements

- 2 GHz Pentium IV

- 2 GB RAM minimum, 3 GB recommended

- 25 GB in the hard disk

- USB port

Part 2 - Minimum Software Requirements

- One of the following Windows versions:

  o Windows XP Professional SP 3

  o Windows Vista (Professional, Enterprise, or Ultimate)

  o Windows 7 (Professional, Enterprise, or Ultimate)

- One of the following web browsers:

  o Internet Explorer 8 or above

  o Firefox latest version

  o Chrome latest version

- Adobe Acrobat Reader

- Zip extraction utility

- Rational Application Developer 8.5.0 Trial *

* - indicates software provided as part of the courseware.

Part 3 - Software Provided

Name of the files you will receive:

- **WA2098_1.ZIP**

- **WA2098_2.ZIP**

- **WA2098_3.ZIP**

All other software listed under Minimum Software Requirements is either commercially licensed software that you must provide or software that is freely available off the Internet.

Part 4 - Important Ghosting or Imaging Information

Some of the software installed for this course will not function after changing the computer hostname. As such, cloning or imaging should not be used on a fully installed system.

You can save time by extracting the contents of the USB memory stick to C:\ on a clean OS install (no other software installed) and then imaging that hard drive. After restoring the image to the other computers and changing the hostnames, you can then install the software on each computer individually by following the instructions that are detailed later in this document.

Part 5 - Instructions

__1. Extract all the **.ZIP** files to **C:**

__2. Review that the following folders were created:

- **C:\LabFiles**

- **C:\Software\RAD**

- **C:\Software\RAD_SETUP**

- **C:\Software\RESTClient**

- **C:\Software\WAS85**

Part 6 - Installing Rational Application Developer v8.5 Trial (RAD 8.5)

Average time for installation of RAD 8.5 Trial: 60 minutes.

Note: If installing on Windows Vista, Windows 7, or Windows Server 2008 there will be several notes about special steps required on these platforms. Failure to follow these additional steps will lead to an unusable installation.

__1. Before you begin, please shut down any running applications. The installation process is quite CPU/disk intensive.

__2. From **C:\Software\RAD_SETUP**, run **launchpad.exe**. The installer will begin.

Important Note: If installing on Windows Vista/7/2008 right click the **launchpad.exe** program and select '**Run as Administrator**' and accept any security prompts.

__3. Click **Install IBM Rational Application Developer for WebSphere Software**.


A new program – the **IBM Installation Manager** will launch. You will then be prompted to *Install Packages*. These may take some seconds to start.

__4. From the *Install Packages* screen only leave checked the following packages:

- **IBM Installation Manager**

- **IBM WebSphere Application Server - Version 8.5.00**

- **IBM Rational Application Developer for WebSphere - Version 8.5**

Note: Depending on the operating system you may not see the 64-bit WebSphere Application Server options.

__5. Make sure only the following packages are selected and click **Next**.
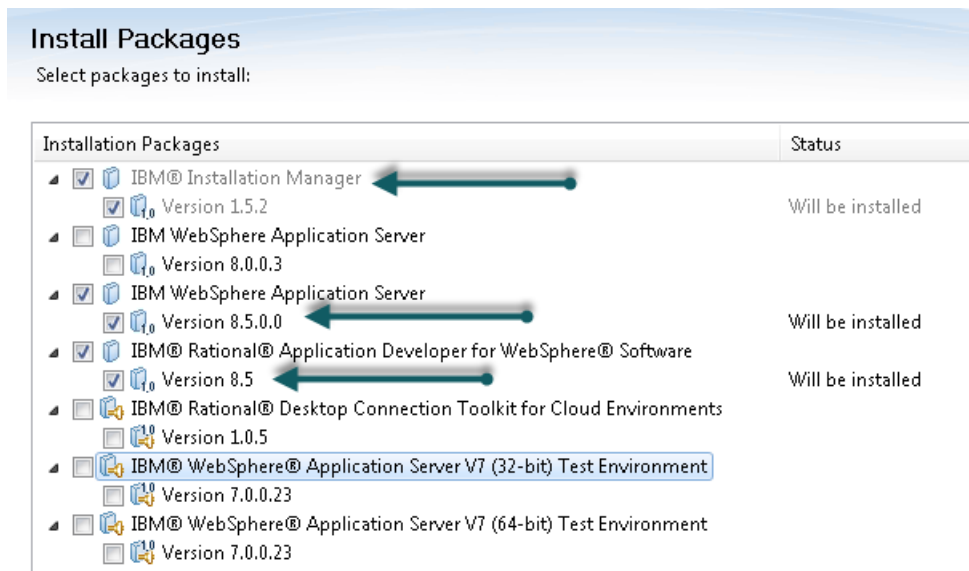
The *Validation Results* page will appear.

__6. Check that you don't have any validation errors except the warning about stopping running programs including anti-virus software and click the **Next** button.
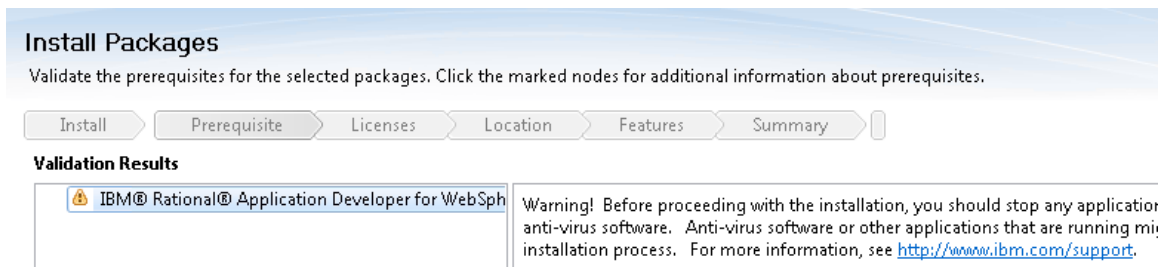
The *License Agreement* screen will appear.

__7. At the bottom of the screen, select **I accept the terms in the license agreements** and click **Next**.

You will be asked to select a location for the Installation Manager.

__8. **Change** the *Shared Resources Directory* and *Installation Manager Directory* to the values below and click **Next**.

- Shared Resources Directory: **C:\IBM\IBMIMShared**

- Installation Manager Directory: **C:\IBM\Installation Manager\eclipse**
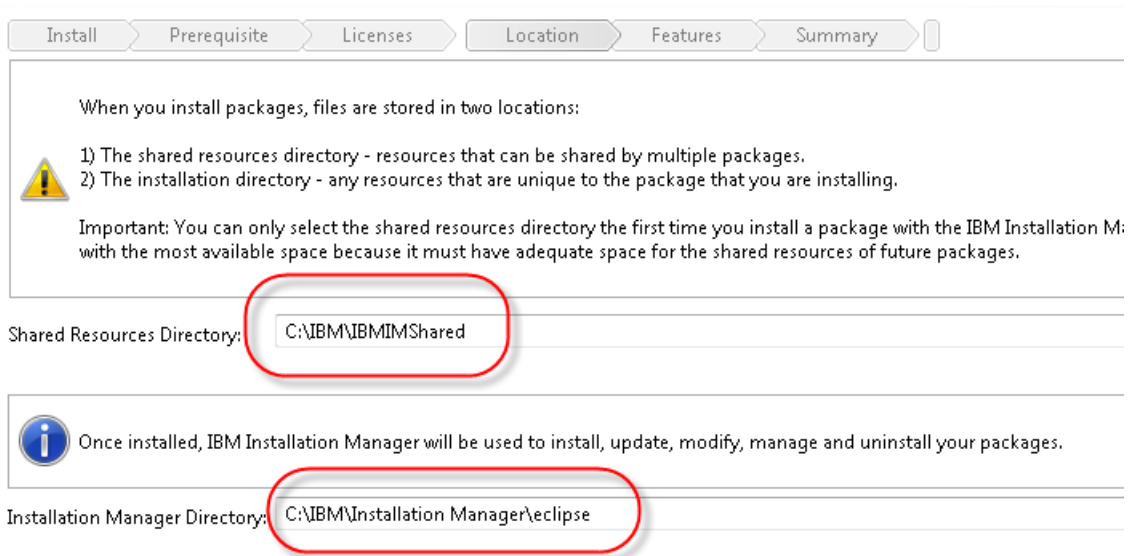
Note: This step is important to avoid permission issues with the 'Program Files' directory.

__9. Select each of the following entries from the 'Package Group Name' list and **modify** the '**Installation Directory**' to the value listed.

- IBM Software Delivery Platform: **C:\IBM\SDP**

- IBM WebSphere Application Server V8.5: **C:\IBM\WebSphere\AppServer**

Note: It is especially critical to modify the directory the WebSphere Application Server test environment is installed to. Installing under 'Program Files' can cause permission issues with saving configuration changes.

__10. Verify the installation locations as shown below and click the **Next** button.

__11. Leave the option to extend an existing Eclipse installation unselected and click the **Next** button.

__12. Leave the default language selection and click the **Next** button.

Translations Supported l

☑ English

__13. The Packages page will open. Click **Expand All** button below the frame.

Install Packages
Select the features to install.

Install 〉 Prerequisite 〉 Licenses 〉 Location 〉 Features 〉 Summary 〉

Features

☑ 📦 IBM® Installation Manager 1.5.2
◪ 📦 IBM® Rational® Application Developer for WebSphere® Software 8.5
◪ 📦 IBM WebSphere Application Server 8.5.0.0
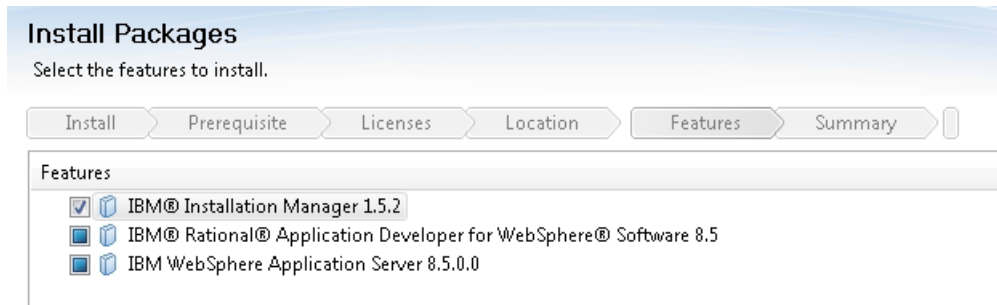
__14. Under **IBM Rational Application Developer for WebSphere 8.5**, check the boxes for **JSF** and **Struts** as shown below.

Install Packages
Select the features to install.

Install 〉 Prerequisite 〉 Licenses 〉 Location 〉 Features 〉

Features

☑ 📦 IBM® Installation Manager 1.5.2
◪ 📦 IBM® Rational® Application Developer for WebSphere® Software 8.5
　　◪ 📁 Web developer tools
　　　☑ AJAX, Dojo, and HTML
　　　☑ Dojo Toolkit libraries
　　　☑ JSF ⟸
　　　☑ JSP and servlet
　　　☐ SDO
　　　☑ Struts ⟸
　　◪ 📁 Enterprise developer tools
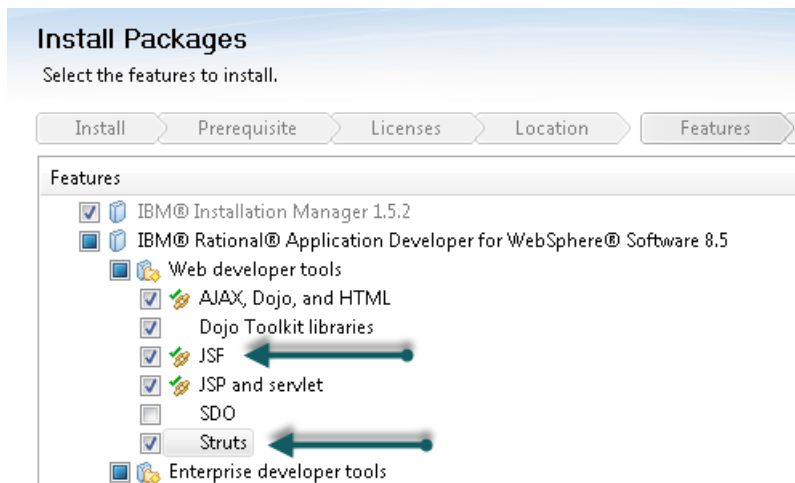
Note. This step is very important to be able to create JSF pages during the Labs.

__15. Make sure you didn't change anything else and then click **Next**.

__16. For the option for the *Help System* leave the option of **Access help from the Web** selected and click the **Next** button.

After the installation, you can change how you access help by using the help preferences option in the product.

○ Access help from the Web

○ Download help and access the content locally. Only limited help content is included during installation. When you first start the product, the complete online help is downloaded and installed provided that you have an Internet connection. On subsequent startups, available updates to the help are downloaded and installed.

○ Access help from a server on your intranet

Note: This option is selected because otherwise RAD will want to download help information every time RAD starts. Even if students are in a classroom without an internet connection the install of RAD can still complete.

__17. You will be asked to review summary information. Expand **IBM Rational Application Developer for WebSphere 8.5 > Web developer tools** and verify **JSF** and **Struts** are included as shown below and then click **Install**.

Installation will start and may take some time.

> **Repository Information**

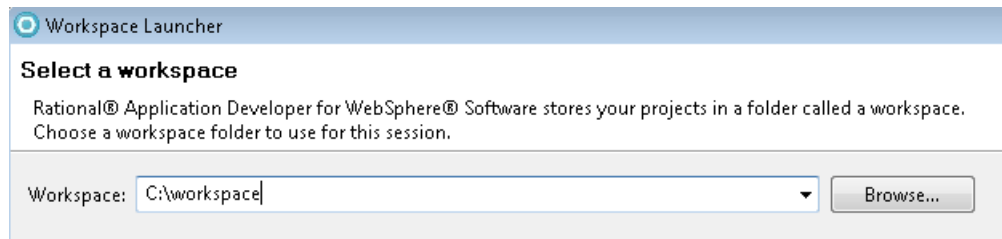Installing.: Retrieving files. 81 MB of 116 MB (70%) completed.
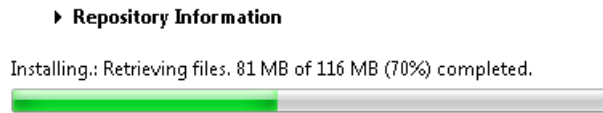
__18. When the installation is completed the following window will open, leave the option '**IBM Rational Application Developer**' selected and click the **Finish** button.

✓ The packages are installed. View Log File

The following packages were installed:

- IBM Software Delivery Platform
    - IBM® Rational® Application Developer for WebSphere® Software
- IBM WebSphere Application Server V8.5
    - IBM WebSphere Application Server 8.5.0.0

Which program do you want to start?

- ○ IBM® Rational® Application Developer
- ○ Profile Management Tool to create a profile.
- ○ Profile Management Tool to create an application server profile for a develc
- ○ None

IBM Software window will open.

IBM Software

Launching, please wait ...

__19. In the workspace window, change the **Workspace** to **C:\workspace** and click **OK**.

○ Workspace Launcher

Select a workspace

Rational® Application Developer for WebSphere® Software stores your projects in a folder called a workspace.
Choose a workspace folder to use for this session.

Workspace: C:\workspace   ▼   Browse...

RAD will start.

__20. If prompted by Windows firewall security unblock the program.

__21. In the *Runtime environment and profile settings* dialog that appears click the **Cancel** button.
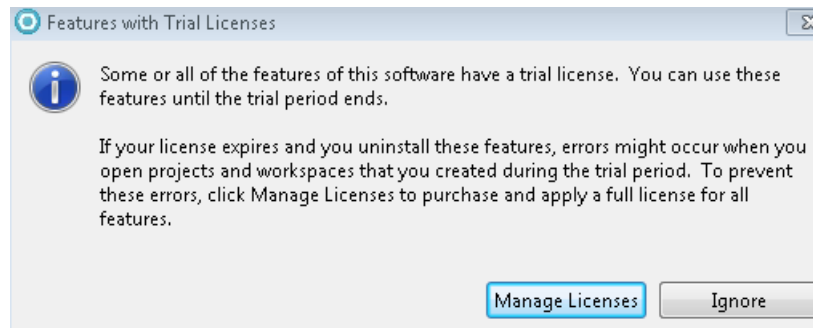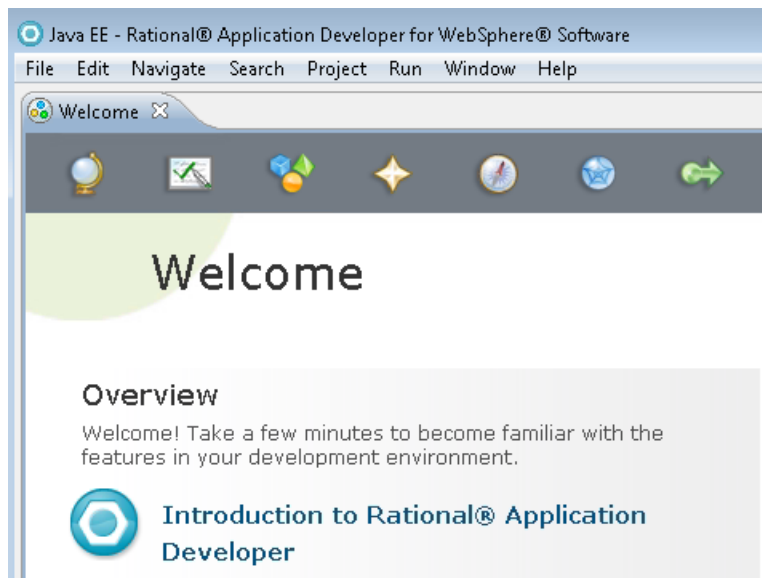

Note: It is important that you cancel creating a profile. Students will create a profile to be sure it is accessible to them.

__22. The **Features with Trial Licenses** dialog will open, click **Ignore**.

__23. If prompted about help content select **Work without Help**.

The Welcome page will open.

__24. From the menu, select **File → Exit** to close Rational Application Developer.

__25. Close all open windows.

Part 7 - Verification of the installation of RAD 8.5

__1. Open the following file:

C:\IBM\WebSphere\AppServer\logs\postinstall\postinstall.log

__2. Look at the end of the file for the message:

```
      <level>INFO</level>
      <class>com.ibm.ws.postinstall.LaunchUnifiedPostInstaller</class>
      <method>logReturnCode</method>
      <thread>0</thread>
      <message>INSTCONFSUCCESS: All config actions ran successfully with return code 0</message>
  </record>
  </log>
```

If you see the message INSTCONFSUCCESS, it means that WebSphere Application Server was installed properly.

__3. Close all open files.

Part 8 - Modify File Permissions

Note: These steps allow full access to the directories used by the RAD and WebSphere installs. This is required so that students can start the WebSphere server from within RAD and will allow the WebSphere server to write to the log files. Without these steps the students won't be able to start the WebSphere server and won't be able to do the labs.

These steps to modify folder permissions should be done no matter what version of Windows is used.

The steps to accomplish this may vary by Windows version but the goal is the same, granting access to all users to the RAD and WebSphere install. If you have questions about how to accomplish this contact the setup support person for the class.

__1. Right click C:**IBM** and select **Properties**.

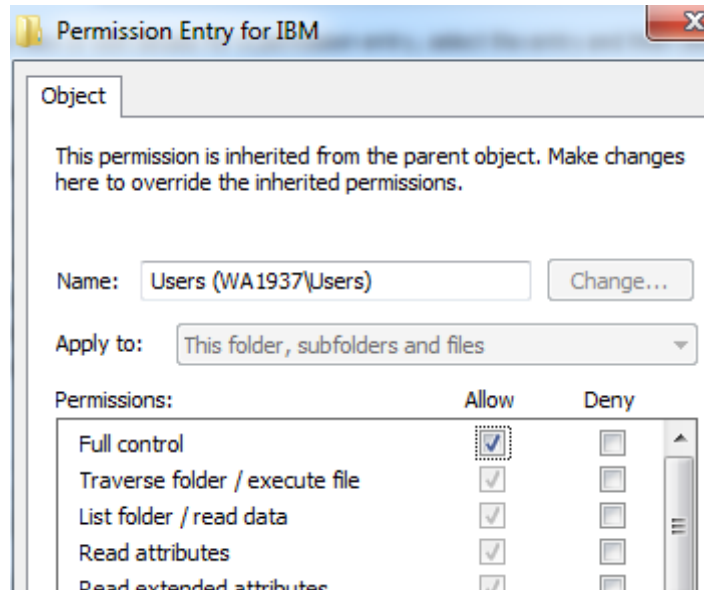__2. Click the **Security** tab.

__3. Click **Advanced**.
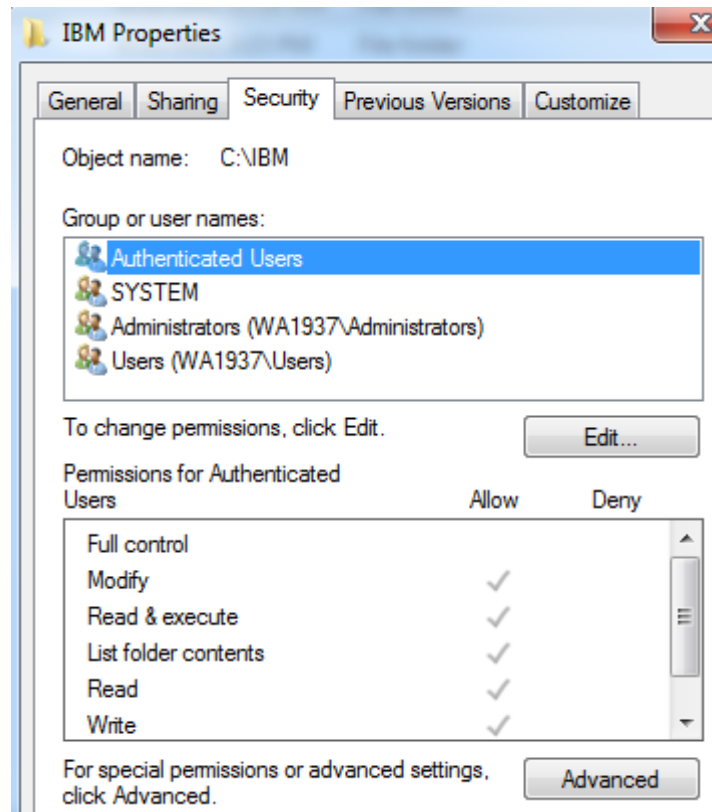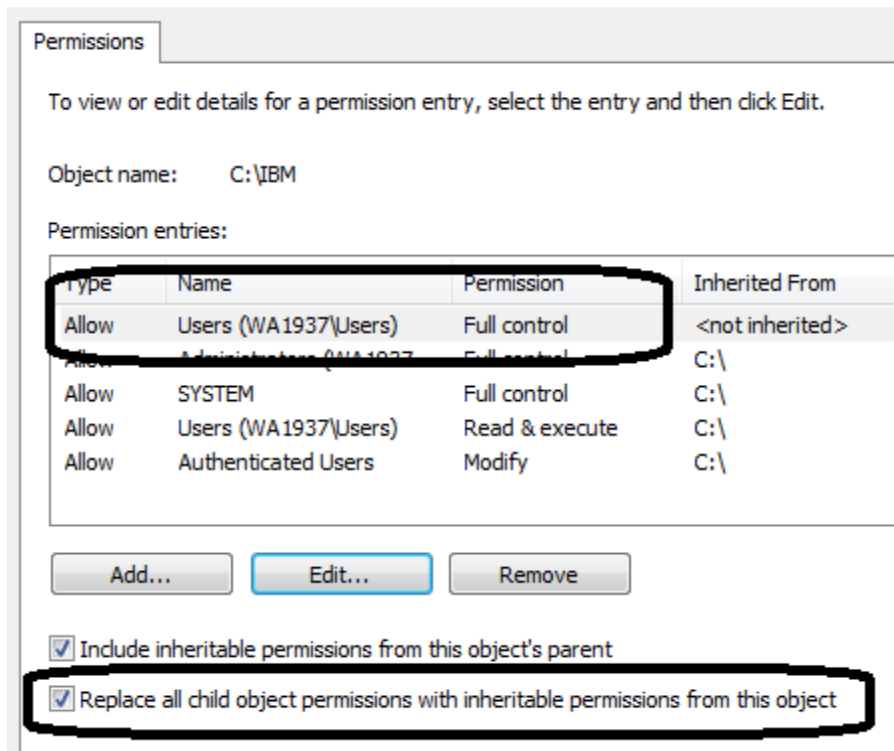

__4. Click **Change Permissions**.

__5. Select the **Users** entry **(add one if not present)**.
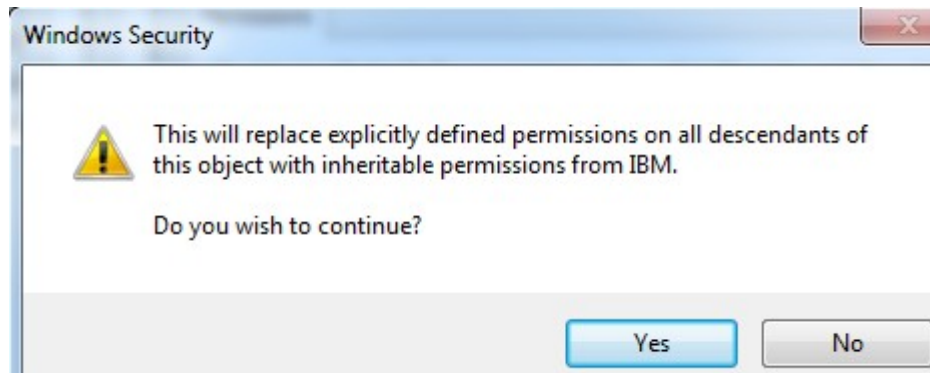
__6. Click **Edit…**

__7. Check **Full Control** permission option and click **OK**.

__8. Select the check box for "**Replace all child permissions with inheritable permissions from this objects"** and then click **OK**.

__9. A *Windows security* dialog will open, click **Yes**.

__10. Wait until Windows finishes updating security, and close all windows when it is done.

__11. Give full privileges to **C:\LabFiles** and **C:\workspace** to all users as you just did it for C:\IBM.

__12. Restart the computer and login with the user that the student will use to do the Labs.

__13. Make sure the user has full access to **C:\LabFiles** and **C:\workspace** as well as **C:\IBM** folders.

Congratulations, **Rational Application Developer** has been installed.

Congratulations. The installation for this course has been completed.