# Development Document

1. Download Eclipse Java EE IDE. Extra plugins needed are,
   1. Web tools Platform
   2. JadClipse (For decompiling Class files – useful for Blackboard compiled class files in the libraries)
   3. Subclipse (for SVN)
2. Download the project from MAA repository under SVN.
3. Check for the build.xml file for output path. Check for the "build-directory" & "reports.dir". Change them to the location you would like to have the output war file.
4. To create a javadoc with UML Diagram you need to have the UMLGraph installed properly as specified in their web-site. Configure the UML Graph accordingly.
5. The entire Eclipse project settings with the libraries are in the repository. So one should not face any issues in development / building / deployment etc.
6. The label.properties file has the labels used in jsp pages. The message.properties file has the properties used in Java class files.
7. The project organization follows the methodology,
   1. Class files under src directory.
   2. JSP files under WebContent/webwork directory.
   3. Admin configuration for settings page in blackboard under WebContent/webwork/admin directory.
   4. Javascript files under WebContent/webwork/JS directory.
   5. Error page under WebContent/webwork/error directory.
8. Read the javaDoc provided with the source code to understand the function of each method / variable / class. One can understand the functionality of the JSP values set using the bean’s setter’s and getters. Mostly the entire project follows this methodology rather than Struts Action / normal JSP forward.
9. For Javascript function names, check the label.properties file. Any display of label information in the front-end using JSP check with this file.
10. For Announcement info in the portal check with the following property –

Messages.properties - BuildingBlockConstants.AnnouncementPublishTextBody

1. Every assignment generated should have the following parameters as listed in the messages.properties file,
   1. BuildingBlockConstants.AssignmentInfoCourseParam=assignmentCourse=
   2. BuildingBlockConstants.AssignmentInfoSetParam=assignmentSet=
   3. BuildingBlockConstants.AssignmentInfoContentIdParam=content\_id=
   4. BuildingBlockConstants.AssignmentInfoCourseIdParam=course\_id=
   5. BuildingBlockConstants.AssignmentGradeBookNameParam=gradebookname=
2. These assignment params are generated in the BlackboardUtil class.(refer javadoc).
3. The success messages displayed are using the following messages.properties,
   1. BuildingBlockConstants.FailureMessages
   2. BuildingBlockConstants.SuccessMessages
4. The login page display message and other display message are with label.properties file as,
   1. Login.Message[1]=You are currently logged (in,as):
   2. Login.Message[2]=Unable to view properly? Please click here:
   3. Login.Message[3]=..
5. One can change the predefined config properties, if one wishes to have them set before loading the plugin to the blackboard using the following properties,
   1. ConfigFile.Default.WebworkSearchCourse=admin
   2. ConfigFile.Default.WebworkUserStatus=C
   3. ConfigFile.Default.WebworkCoursesSearchMethod=Advanced
   4. ConfigFile.Default.SOAPClassesPermission=0
   5. ConfigFile.Default.WebworkInstructorPermissionLevel=10
   6. ConfigFile.Default.WebworkStudentPermissionLevel=0
   7. ConfigFile.Default.WebworkAssignmentPointFactor=1
   8. ConfigFile.Default.WebworkDataSecurity=None
   9. WebworkService.WebServerLocation=http://webwork.math.missouri.edu/WebworkSOAP
   10. WebworkService.WebworkRPCLocation=http://webwork.math.missouri.edu/webwork2\_rpc
   11. WebworkService.WebworkSiteUrl=http://webwork.math.missouri.edu/webwork2/
   12. ConfigFile.Default.SOAPAuthKey=123456789123456789
6. There should not be any changes with web.xml unless a new tag library is added / a framework is employed.
7. Read the Installation document for understanding bb-manifest.xml and other properties.