

JcrCodeExample

```
/*0.) Setup Repository Instance: Many ways to do this */
Repository repository = getRepositoryFromSomewhere();

Session session =
    repository.login(
        new SimpleCredentials(
            "username",
            "password".toCharArray()
        )
    );

/*1.) Editing: Create a node in the repository */
{
    Node rootNode = session.getRootNode();
    Node item = rootNode.addNode("1721.1_33972");

    /* Set a simple property on the node */
    item.setProperty("title", "My Thesis");
    item.setProperty("creationTime", Calendar.getInstance());
    item.setProperty("userName", "username");

    {
        /* Putting binary Content into a property */
        Node bitstream = item.addNode("bitstream_1");
        bitstream.setProperty("name", "file.txt");
        bitstream.setProperty("description", "My File");
        bitstream.setProperty("creationTime", Calendar.getInstance());

        InputStream in = getInputStreamFromSomewhere();
        bitstream.setProperty("content", in);
    }

    session.save();
}

/*2a.) Accessing: Iterate over Nodes */
{
    Node root = session.getRootNode();

    for (NodeIterator iter = root.getNodes(); iter.hasNext(); ) {
        Node item = iter.nextNode();

        if (!item.getName().equals("1721.1_33972"))
            continue;
        String title = item.getProperty("title").getString();
        Value creationTimeValue = (Value) item.getProperty("creationTime").getValue();
        String userName = item.getProperty("userName").getString();

        {
            /* get the bitstream node and retrieve an InputStream */
            Node bitstream = item.getNode("1");
            Value value = (Value) bitstream.getProperty("content").getValue();
            InputStream in = value.getStream();

            /*... Do somethinf fun here */

        }
    }
}

/*2b.) Accessing: Use XPath to Query Nodes */
{
    Workspace workspace = session.getWorkspace();
    QueryManager queryManager = workspace.getQueryManager();
}
```

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Query query = queryManager.createQuery(
    "//1721.1_33972[@title='My Thesis']/bitstream_1",
    Query.XPATH);

QueryResult result = query.execute();
for (NodeIterator iter = result.getNodes(); iter.hasNext(); ) {
    Node bitstream = iter.nextNode();
    /* get the bitstream node and retrieve an InputStream */
    Value value = (Value) bitstream.getProperty("content").getValue();
    InputStream in = value.getStream();
    /*... Do something fun here */
}

}

/* 3a.) Versioning: Checkout, Modify and Checkin */
{
    Node node = getNodeFromSomewhere();
    node.checkout();
    node.setProperty("wiki:content", "Updated content for the entry.");
    node.save();
    node.checkin();
}

/* 3b.) Versioning: Accessing Versions */
{
    Node node = getNodeFromSomewhere();
    VersionHistory vh = node.getVersionHistory();
    VersionIterator vi = vh.getAllVersions();
    vi.skip(1);
    while (vi.hasNext()) {
        Version v = vi.nextVersion();
        for (NodeIterator ni = v.getNodes(); ni.hasNext(); ) {
            Node nv = ni.nextNode();
            System.out.println("Version: " + v.getCreated().getTime());
            System.out.println(nv.getProperty("wiki:title").getString());
            System.out.println(nv.getProperty("wiki:content").getString());
        }
    }
}

```