

# School of Computer Science & Software Engineering

## Assignment 1 (Individual)

**CSCI213 – JAVA PROGRAMMING AND APPLICATIONS**  
**April 2016 – June 2016**

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Weightage: 10% of Subject  
Submission: 17<sup>th</sup> April 2016 2355 hrs Wollongong time to Moodle  
Demo Date: 28<sup>th</sup> April 2016 during Lab 3

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## CSCI213 Assignment 1: Create A Simple Java Application

### 1. Overview

This assignment aims to establish a basic familiarity with the JDK development system and its associated on-line Java API class documentation. Students should apply the appropriate fundamental programming concepts (such as variables, constants, arrays, strings, methods, selection and repetition constructs etc.) and make use of appropriate Java API classes (such as Scanner, PrintWriter, String etc.) that they have learnt to solve the given problem.

### 2. Objectives

On completion of this assignment a student should be able to write simple Java application that:

- Makes use of selection and repetition constructs to achieve desired outcomes
- Stores data to and reads data from arrays
- Generates output to and reads input from the console window
- Reads data from and writes data to text file
- Manipulates string using Java API "String" class
- Handles basic errors
- Applies object-oriented concepts

### 3. Scope

This assignment is based on individual effort. You are required to design, develop and test a user accounts management system for a game application.

Besides providing the required functionalities, your program should incorporate appropriate error handling. Comments are also to be inserted to improve program clarity. Before you start coding your program, you are strongly advised to carry out proper problem analysis and program design. You are required to use JDK 1.5 developer version or later.

### 4. Requirements

This application allows the admin to

1. Login
2. Create a player
3. Delete a player
4. Reset player's password
5. Display a player's detail
6. Display all players scores
7. Change admin password
8. Logout

This application will have access to two text files.

The first text file (admin.dat) contains the administrator-hashed password (SHA-256).

For example

be4b826c27636ab54a8bf15d73fc1bf2a533f547f2343d12a499d45643453ad4
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The second text file (players.dat) contains the player's information in the following format

<Login Name>|<password in SHA-256>|<Last Login Date>|<Scores>

The Last Login Date is in YYYY-MM-DD format

For example

BlackRanger	21a57f2fe765e1ae4a8bf15d73fc1bf2a533f547f2343d12a499d45643453ad4	2016-1-18	10
BlueKnight	e765e4456e4f1ae4ae8bf15d73f435535e4a56f441f2556315a23646473e3454	2016-2-22	15
IcePeak	343a4d56b453c76e5e1ae54a8bf15d73fc1bf2a533f547f2343d19c0592044d4	2016-1-9	10
GoldDigger	bf2a536446464643e32335b3eddf2233433f547f2343d12a49343345ab53c4d	2016-3-8	22

### Error Handling

Your program should be able to handle error situations. For example where a player name already existed (for Create a player) or player name not found (for delete player). You should look out for other possible exceptions and handle them too.

## 5. Submission

A complete submission requires the following items:

1. Report
2. Program in Zip file for execution
3. Program listing in a single word file (for turnitin check)

Missing in any of the above items is consider non-submission.

Late submission for any above items is consider late submission.

### Program file header

For each Java program file, provide the header as shown

```
/*
 * CSCI213 Assignment 1
 * -----
 * File name: (state name of .java file)
 * Author: (State student name in FULL)
 * Student Number: (State UOW student number)
 * Description: (A brief description of this class)
 */
```

Any late submission of work must be accompanied by an application for Special Consideration, requested via SOLS. Unless an extension is granted, any late submission will receive a penalty of 25% of its total worth per day including weekends, and will result in zero mark being recorded on or after the 4<sup>th</sup> late day. Late submission may be submitted through email. Request for extension with supporting document must be submitted to SIM administration for further consideration before the submission date and the tutor must be informed. Extension will be granted on a case-by-case basis.

## Report requirements

The report to be submitted consists of the following sections:

1. Cover page – clearly state your name and UOW student's number.
2. Content Page
3. UML class design
4. Test-run of Program: You have to provide screen outputs to show the correct execution of your program according to the requirements stated.
5. Error Handling: List down and explain the errors and exceptions that your program can handle. Provide screen captures here.
6. Enhancements: List down and explain all the enhancements that your have done. Provide screen captures here
7. Conclusion and Reflection

## Testing requirements

Make sure that you are able to run your program using the command (**java AdminModule**) directly from the command prompt from the project folder.

Set the default admin password to "asd"

In the players.dat, you should have the following FOUR players' data.

Login Name	Password	Last login date	Scores
player1	p1	2016-1-11	10
player2	p2	2015-12-2	12
player3	p3	2016-2-7	15
player4	p4	2016-3-15	9

Refer to Report guideline and marks allocation document for detailed report requirements.

## 6. Plagiarism

The University's policy on copying does not allow you to copy software as well as your assessment solutions from another person. Copying of another person's work is unacceptable. It is the responsibility of all students that their assessment solutions are their own work. You must also ensure that others do not obtain access to your solutions for the purpose of copying a part of them.

**Where such plagiarism is detected, both of the assessments involved will receive ZERO mark.**

## 7. Evaluation Criteria (total 50 marks)

Refer to Report guideline and marks allocation document