DEPARTMENT OF COMPUTER SCIENCE

COURSEWORK ASSESSMENT SPECIFICATION

MODULE DETAILS:

Module Number:	08220	Semester:	1
Module Title:	Systems Analysis Design and Process		
Lecturer:	RSM		

COURSEWORK DETAILS:

Coursework Assessment Number:	1	of	2		
Title of Assignment:	Assessed Coursework				
Format:	Report	2nd format	3rd format		
Method of Working:	Individual				
Workload Guidance:	Typically, you should expect to spend between	5	and	15	hours on this assessment

PUBLICATION:

Date of issue:	8th October 2007

SUBMISSION:

ONE copy of this assignment should be handed in via:	Class Server	Other (please state method)	
Time and date for submission:	**2nd November 2007**		
If **multiple hand–ins** please provide details *(as appropriate)*:			

The assignment should be handed in no later than the time and date shown above, unless an extension has been authorised on a *Request for an Extension for an Assessment* form which is available from the Office or http://www.student-admin.hull.ac.uk/downloads/Mitcircs.doc. The extension form, once authorised by the lecturer concerned, should be attached to the assignment on submission (or given to the lecturer in the case of electronic submission).

MARKING:

Marking will be by:	Student Name

BEFORE submission, each student must complete the **correct** departmental coursework cover sheet dependant upon whether the assignment is being marked by student number, student name, group number or group name. This is obtainable from the departmental student intranet at http://intra.net.dcs.hull.ac.uk/sites/home/student/ACW%20Cover%20Sheets/Forms/AllItems.aspx

ASSESSMENT:

The assignment is marked out of:	100	and is worth	10	% of the module marks

ASSESSMENT STRATEGY AND LEARNING OUTCOMES:
The overall assessment strategy is designed to evaluate the student's achievement of the module learning outcomes, and is subdivided as follows:

LO	Learning Outcome	Method of Assessment *{e.g. report, demo}*
1	*Analyse a real-world problem and identify the objects, relationships and activities.*	Report
2	*Create a top-level system design that meets identifiable requirements.*	
4	*Express a design using UML*	
5	*Deploy a Computer Aided Software Engineering (CASE) tool to create and manipulate architectural designs expressed in the Unified Modeling Language (UML)*	
6	*Demonstrate an understanding of the mechanism by which control class behavior is implemented in a system..*	

Assessment Criteria	Contributes to Learning Outcome	Mark
Report Use-case diagram	1,2,4,5	15%
Report Use-case descriptions	1,2,4,5	10%
Report Class Diagram	1,2,4,5	15%
Report Activity Diagrams	1,2,4,5	15%
Report Boundary and Control Classes	1,2,4,5	15%
Report Sequence Diagrams	1,2,4,5	15%
Software Design Report	6	15%

FEEDBACK

Feedback will be given via:	Feedback Sheet	Other (please state method)	
Other feedback (if appropriate) will be			

given via:	
Feedback will be provided no later than: *(please state date, week or month)*	1st December

Questions
If you have any questions regarding this assessment you **MUST** speak to the lecturer as soon as possible.

You are advised to read the **NOTES** regarding Late Penalties, Use of Unfair means and Quality Assurance on the department's student intranet at:
http://intra.net.dcs.hull.ac.uk/sites/home/student/ACW%20Cover%20Sheets/Forms/AllItems.aspx

In case of any subsequent dispute, query, or appeal regarding your coursework, you are reminded that it is your responsibility, not the Department's, to produce the assignment in question.
(*Assignment details attached)*

08220 SOFTWARE ANALYSIS DESIGN AND PROCESS

ASSESSED COURSEWORK 1

This description is to be read in conjunction with the ACW specification for this deliverable.

GAME RENTAL CLUB SCENARIO

The following is a description of the system that is to be analysed:

> *Gamers can join the Game Rental club and borrow or buy computer games. The membership details are taken by a customer representative who will then enter them onto the system. The details include the name and address of the customer, along with the types of video game system that he or she owns. The club keeps a number of copies of each game for each console. The club obtains the games from a wholesaler.*
>
> *Members of the club can borrow up to five computer games at a time, each game for a period of up to five days. At the end of the rental they can either return the game or buy it from the club. If the game is purchased the club will get another copy of the game from the wholesaler. At the end of the loan period the customer can rate the game on a five point scale. This information is used to compile a league table for inclusion in the newsletter.*
>
> *A member can reserve a game title. When a copy of a game is returned a check is made to see if that title has been reserved. If it has been reserved the returned copy is set aside for that member for a period of four days. Every morning a customer representative contacts each member for whom a game is now available and tells them that they can come and collect it.*
>
> *The club administrator decides which new games to buy for each platform. Each month the club produces a newsletter which is sent to each member of the club. This describes the new games which are available and the ratings of existing games. Members are allowed to request that a new game be added to the club; if more than 5 such requests are made for a particular game it is purchased automatically. A game which is not borrowed for six months is removed from the club and offered for sale in the newsletter at a reduced price.*

ASSESSMENT

The assessment submission take the form of a report containing the design documentation and listings of the C# classes specified. A completely working software solution is not required, but can be submitted.

REPORT

The report must contain the following items:

1. **Use Case Diagram** – this must identify the actors in the system and the use cases that they must interact with. It must also identify any relationships between use cases and also give the System Boundary.
2. **Use Case Descriptions** – for each use case detail must be provided as to the outcomes of the use case and different ways in which the use case can complete. This should be attached to the use case diagram as further description of the use cases.
3. **Class Diagrams** – a top level class diagram should be provided which identifies the classes in the system and the relationships between them. Within each class the appropriate properties and methods should be identified which will allow the data within them to be used to realize the use cases in the system. The Classes should be placed in appropriate packages.
4. **Activity Diagram** – two activity diagrams, one for the loan of a video game and another for the return of a video game, must be provided.
5. **Boundary and Control Classes** – boundary and control classes required to implement the reservation of a video game title and the reservation of a lendable instance of a video game must included on the diagrams.
6. **Sequence Diagram** – two sequence diagrams, one for the reservation of a video game and another for the reservation of a lendable instance of a game, must be provided. These should be at an appropriate level of detail and include reference to the boundary and control classes as required.
7. **Software Design** – the C# code required to implement the control and boundary classes for the reservation of a lendable item

Any questions about the specification or the creation of these diagrams and behaviors should be directed to Rob Miles.

SOFTWARE

The software to be submitted may take the form of listings of the boundary and control classes which are required. Additionally, it is permissible to submit a working implementation of the solution, but this is not required.

October 2007