## Deliverable #1

SYST17796

Software Development

Mark Buchner

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**OVERVIEW** 

1. **Project Background and Description** 

The project is based on a card game called "War". A deck of 52 cards is equally divided into 2

players. These cards are not visible to either of the players. The game starts with each player

drawing up a card from the 26 cards randomly. The player with the higher rank of the two, wins

the draw. In case of a tie, assuming both the cards are the same rank, it will be "War", both the

players will have to draw another card. The player with the higher rank will take the pile of the

cards.

We, as a team, are aiming to code this game in Java. The current starting code exists of certain

abstract classes which will be further extended into objects of decks, players and cards. We find

it convenient to use arrays for the decks. The use of separate classes will help in user readability

and ease of access to the code.

**Project Scope** 

Shahryar Faisal: Requirement Analyst

Vansh Tyagi: Build Lead

Javnika Patel: Test Lead

Abishek Jassal: Project Manager

We have divided this project into certain tasks. For example, our first task is to create a deck.

Now all four of us will work on it and our will improvise the code. The test lead will check the

code for any input mistakes or logical errors. Build lead will provide us the best scenario or

algorithm for the problems we face and the requirement analyst lays out the plan for the project.

We will tackle these tasks one step at a time and that's how we'll know the project is complete.

#### **High-Level Requirements**

The project will include the following:

- Ability for user to sign up as a player.
- The game will show a display message of win or loss at each draw of cards.
- The game will show the number of cards a player holds after each round.

### **Implementation Plan**

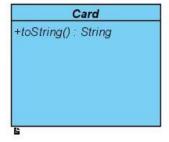
https://github.com/VanshTyagi24/Deliverable1\_Amigos.git

Each developer will cross check the code through github and push corrections if needed. UML diagram is posted under a separate folder as well as the source code.

#### **Design Considerations**

The current code is structured using the abstract classes that are already provided. We'll use Encapsulation as well as other coding techniques. Our potential of improvement will be based around efficiency of the cards code. These examples include the creation of decks using suits and ranks as instances.

## UML Diagram of base code (Also uploaded on github under a directory /UML) :



Player
-playerID: String
+getPlayerID(): String
+setPlayerID(givenID: String): void
+Player(name: String)
+play(): void

-players: ArrayList<Player>
-gameName: String
+getPlayers(): ArrayList<Player>
+setPlayers(players: ArrayList<Player>): void
+getGameName(): String
+play(): void
+declareWinner(): void
+Game(givenName: String)

GroupOfCards
-size:int
-cards:ArrayList<Card>
+getSize():int
+setSize(size:int):void
+GroupOfCards(givenSize:int)
+showCards():ArrayList<Card>
+shuffle():void

Please negotiate, sign, scan and include as the first section in your Deliverable 1.

Please note that if cheating is discovered in a group assignment each member will be charged with a cheating offense regardless of their involvement in the offense. Each member will receive the appropriate sanction based on their individual academic honesty history.

Please ensure that you understand the importance of academic honesty. Each member of the group is responsible to ensure the academic integrity of all of the submitted work, not just their own part. Placing your name on a submission indicates that you take responsibility for its content.

For further information read Academic Honesty Policy on AccessSheridan or visit the faculty office and speak with the Program Support Specialist.

Team Member Names (Please Print)	Signatures	Student ID
Project Leader: Shahryar Faisal	Gred)	991600793
Vansh Tyagi	Romoh	991604000
Abishek Jassal	Dehishek	991605946
Javnit Patel	J's	991600462

By signing this contract, we acknowledge having read the Sheridan Academic Honesty Policy as per the link below.

https://policy.sheridanc.on.ca/dotNet/documents/?docid=917&mode=view

- Assigning tasks to other team members, including self, in a fair and equitable manner.
- Ensuring work is completed with accuracy, completeness and timeliness.
- Planning for task completion to ensure timelines are met
- Any other duties as deemed necessary for project completion

# What we will do if . . .

Scenario	Accepted Y/N + initial	We agree to do the following
Team member does not deliver component on time due to severe illness or extreme personal problem	Y+ SF VT JP AJ	<ul> <li>a) Team absorbs workload temporarily</li> <li>b) Team seeks advice from professor</li> <li>c) Team shifts target date if possible</li> <li>d) Other:</li> </ul>
Team member cannot deliver component on time due to lack of ability	Y+ SF VT JP AJ	<ul> <li>a) Team reassigns component</li> <li>b) Team helps member</li> <li>c) Team member must ask professor for reference material</li> <li>d) Other:</li> </ul>
Team member does not deliver component on time due to lack of effort	Y+ SF VT JP AJ	<ul> <li>a) Team absorbs workload</li> <li>b) Team "fires" team member by not permitting his/her name on submission</li> <li>c) Other:</li> </ul>

Scenario	Accepted Y/N + initial	We agree to do the following
Team member does not attend team meeting	Y+ SF VT JP AJ	<ul> <li>a) Team proceeds without him/her and will assign work to the absent member</li> <li>b) Team doesn't proceed and records team member's absence</li> <li>c) Team proceeds for that meeting but "fires" member after occurrences</li> </ul>
A piece of production equipment fails such as a printer, disk drive, or laptop	Y+ SF VT JP AJ	<ul> <li>a) Backup copies will be made and kept in the college</li> <li>b) A locker or "share" directory will be used for joint access</li> <li>c) A photocopy and duplicate disk of all deliverables will be made</li> <li>d) Other:</li> </ul>
An unforeseen constraint occurs after the deliverable has been allocated and scheduled (a surprise test or assignment)	Y+ SF VT JP AJ	<ul><li>a) Team meets and reschedules deliverable</li><li>b) Team will cope with constraint</li><li>c) Other:</li></ul>
Team cannot achieve consensus leaving one member feeling "railroaded", "ignored", or "frustrated" with a decision which affects all parties	Y+ SF VT JP AJ	a) Team agrees to abide by majority vote b) Team flips coin c) Other:
Team members do not share expectations for grade desired	Y+ SF VT	a) Team will elect one person as "standards- bearer" who has the right to ask that work be redone

AJ c) Team will ask for individual marking and	JP	b) Team votes on each submission's quality
will identify sections by author d) Other:	AJ	will identify sections by author

Scenario	Accepted Y/N + initial	We agree to do the following
Team member behaves in an unprofessional manner by being rude or uncooperative	Y+ SF VT JP AJ	<ul> <li>a) Team attempts to resolve the issue by airing the problem at team meeting</li> <li>b) Team requests meeting with professor to problem-solve</li> <li>c) Team ignores behaviour</li> <li>d) Team agrees to avoid use of all vocabulary inappropriate to the business setting</li> </ul>
Team member assumes or requests that his/her name be signed to a submission but has not participated in production of the deliverable	Y+ SF VT JP AJ	<ul> <li>a) Team agrees that this is cheating and is unethical</li> <li>b) Friends are friends and should help each other</li> <li>c) Team will submit with signature but will advise professor who will take action</li> </ul>
There is a dominant team member who is content to make all decisions on the team's behalf leaving some team members feeling like subordinates rather than equal members	Y+ SF VT JP AJ	<ul> <li>a) Team will actively solicit consensus on all decisions which affect project direction by asking for each member's decision and vote —</li> <li>b) Team will express subordination feelings and attempt to resolve issue</li> <li>c) Other:</li> </ul>
Team has a member who refuses to participate in decision making but	Y+ SF VT	a) Team forces decision sharing by routinely voting on all issues

JP	b) Team routinely checks with each other about
AJ	perceived roles
	c) Team discusses the matter at team meeting