

FOOP Final Project

Team 33

(1) Team members

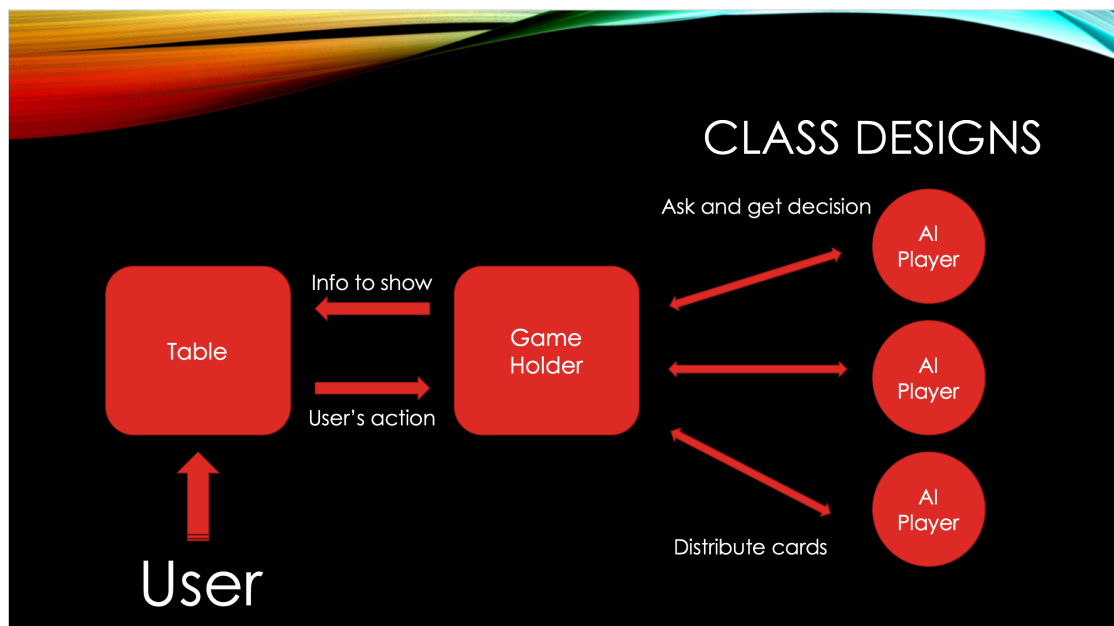
B03902034 劉浩然 B03902035 黃兆緯

B03902059 紀典佑 B03902060 江昶翰

(2) Work Division



(3) Class Design and Relations



卡片格式Class Card

Construct就傳入參數(color,value)

variable	type	value	
color	int	0.1.2.3.4	Red/Green/Blue/Yellow/Black
value	int	0~14	0~9number/10skip/11drawtwo 12reverse/13wild/14wilddrawfour

玩家指令 Class Player

variable	type	value	
hand	ArrayList<Card>		Stands for all cards the player has. Should be sorted

Function	input	Do	return	附註
play_card (Card input)	The Card on table	Decide to play a card	Card 他決定出的牌	如果沒牌可出回傳一張(-1, -1)
get_card(Card input)	The Card he will get	Put the card in hand		輸入card之後會sort完
show_hand()		Show hand	ArrayList<Card> 他的手牌	
win		show win or not	boolean ture 表示手牌空了	

Class User extends Player

完全同Player 但play_card(Card input)要跟Table要使用者要出的牌，這個class要確保使用者選的牌是能出的，如果user選了一張不能出的牌，送訊息給他告訴他不能出要重選。

介面 class Table

Function	input	Do	return	附註
ask_card()	The Card on table	讓使用者點一張牌出	Card 使用者決定出的牌	
card_validity(boolean validity)	The validity of the card returned from ask_card()	True:出牌 False:重新點一張牌出		
update(ArrayList<Card> hand, int i)	The i-th player's hand to be update	更新input的手牌顯示		
show(String message)	A message for user.	想辦法給他看這個訊息		
on_table(Card open)	The open card in the middle of table	顯示桌上的牌		
showWinner(int i)	The i-th player(1~4)	show Win message		
showNow(int i)	i-the player	use a arrow point the i-th player		
getColor()		let player choose a color		

(4) Advantages

Clearly division of work. With the spec, everyone can do their own part no matter how much process others made.

(5) Disadvantages

There is some negligence in spec that can't be notice only if we try to imply each class. Some communication is needed when implying the classes.

(6) Packages Used

Both Swing and AWT (Abstract Window Toolkit)

(7) How to Play

Just as usual UNO game! Cards will be distributed and sorted automatically for you. Red arrow stands for the player's turn.

When you need to decide color for black card, chose from the wheel on the screen.

When you get more than 8 cards, the screen won't be able to display them all, so hit the menu bottom and select next page to see the rest of your hand.

There are also some special surprises in the menu!