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Lab Exercise 3 – August 2021

Programme	:	BTech	Semester	:	FS 2021-22
Course Title	:	Foundations of Data Analytics	Code	:	3505
			Class Nbr(s)	:	CH2020211001158
Faculty(s)	:	Dr. B. Radhika Selvamani	Slot		L33+L34
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Data Frames and Data Tables in R

Question A

Q.No.	Question Description	Marks
1.	**Find attached the poker hand details of a card game in the attached csv file.** **It has 11 columns.** **The attribute details are given below.** **Read this .csv file as a data frame.** **Attribute Information:** 1) S1 "Suit of card #1" Ordinal (1-4) representing {Hearts, Spades, Diamonds, Clubs} 2) C1 "Rank of card #1" Numerical (1-13) representing (Ace, 2, 3, ... , Queen, King) 3) S2 "Suit of card #2" Ordinal (1-4) representing {Hearts, Spades, Diamonds, Clubs} 4) C2 "Rank of card #2" Numerical (1-13) representing (Ace, 2, 3, ... , Queen, King) 5) S3 "Suit of card #3" Ordinal (1-4) representing {Hearts, Spades, Diamonds, Clubs} 6) C3 "Rank of card #3" Numerical (1-13) representing (Ace, 2, 3, ... , Queen, King) 7) S4 "Suit of card #4" Ordinal (1-4) representing {Hearts, Spades, Diamonds, Clubs} 8) C4 "Rank of card #4" Numerical (1-13) representing (Ace, 2, 3, ... , Queen, King) 9) S5 "Suit of card #5" Ordinal (1-4) representing {Hearts, Spades, Diamonds, Clubs} 10) C5 "Rank of card 5" Numerical (1-13) representing (Ace, 2, 3, ... , Queen, King) 11) CLASS "Poker Hand" Ordinal (0-9) 0: Nothing in hand; not a recognized poker hand	

	1: One pair; one pair of equal ranks within five cards 2: Two pairs; two pairs of equal ranks within five cards 3: Three of a kind; three equal ranks within five cards 4: Straight; five cards, sequentially ranked with no gaps 5: Flush; five cards with the same suit 6: Full house; pair + different rank three of a kind 7: Four of a kind; four equal ranks within five cards 8: Straight flush; straight + flush 9: Royal flush; {Ace, King, Queen, Jack, Ten} + flush		
a	Create a new data frame from the given .csv file where the 1st, 3rd, 5th , 7th ang 9th columns are factors with the levels "Heart, Spade, Diamond, Club" for values {1,2,3,4} Display the data frame.		
b	Convert the last column into a factor where the numbers are labelled as below 0: **Nothing in hand**; not a recognized poker hand 1: **One pair**; one pair of equal ranks within five cards 2: **Two pairs**; two pairs of equal ranks within five cards 3: **Three of a kind**; three equal ranks within five cards 4: **Straight; five cards**, sequentially ranked with no gaps 5: **Flush**; five cards with the same suit 6: **Full house**; pair + different rank three of a kind 7: **Four of a kind**; four equal ranks within five cards 8: **Straight flush**; straight + flush 9: **Royal flush**; {Ace, King, Queen, Jack, Ten} + flush Display the data frame		
c	Display all the Three of a kind cards.		
d.	Display all cards which are "Nothing in Hand" or One Pair or Two Pairs		