Groups #	Students Name	project title	Data Structure and algorithm	Approval	Similar project	First come first serve
Group 1	Syed Moosa Abbas - 22953 Muhammad Saad Moon - 22807	Planning Aircraft Routes	Graph, Dijkstra's Algorithm	Not Approved	Group 19, Group 31	9:30
Group 2	Hashir Muzaffar - 22816 Madiha Abid - 22823 22832	Bank Management System	tree, queues, linked list, hash tables	Approved- must be different from other similar group	Group 9	
Group 3	Maaz Bin Adnan - 22763 Hamza Shariq - 22863 Musab Zuberi –22731	Atomic Nature of Matter	stack, queues, graph	Not Approved- need to discuss details		
Group 4	22841 23008 22790	Hangman	Array, linklist	not Approved		
Group 5	Hamza Akbar - 09364 22892 Vishal Das	Deadbeat Huffman & the Lost Pixels	image files, binary tree, priority queue to keep frequencies	Not Approved - exact same as other group	Group 32, Group 38	1:am
Group 6	Muhammad Ahsan Ali Khan - 22839 Sameer Alam - 22739 Abdul Ahad - 22751	Contact book	Array, nested linklist, hash table	Approved - add more functionality		
Group 7	Zinnerah Rafiq - 23015 Syed Jazil Ali - 22471	VideoGames Database	Queue, binary tree, linkedlist	Approved		
Group 8	SYED OWAIS ALI-23053 MOHAMMAD MOHSIN-22837 HASIN ZAMAN-23010	Text Editor	BK tree, linkedlist,	Not Approved - change it	Group 30	
Group 9	Shariq Anwar - 22736 Zohaib Azam - 22732	Management System	linked list arraylist, hashing	Approved	Group 2	

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Group 10	Laiba - 22989 21917 22988	Quran Explorer	array, linklist, hashing/tree	Approved	Group 15, Group 21
Group 11	Muhammad Aun - 23084 Muhammad Maaz Siddiqui - 22997	Population Census data	hashing, linklist, use nested hash tables	Approved	
Group 12	Naseer Ahmed Aziz - 22743 Safwan Khan - 23029	vocabulary through a game	array	Not Approved	
Group 13	Imad Bilal - 19729 22799 22882	Hangman	tree	Not Approved	
Group 14	Sara Akbar Ebrahim – 22967 Ram Singh - 22864 Dileep - 22887	phone directory	table , doubly linked list	Approved	
Group 15	Suneel Kumar – 22962 22983 23011	Quran explorer	linked list , tree, sorting	Approved	Group 10, Group 21
Group 16	22944	file			
Group 17	Hamza Faisal - 22971. 23061. Mohammed Ali Akbar - 22950	Management System	hashing, binary tree, arraylist	Approved	
Group 18	Umar Khalid - 22979 Muhammad Ali Haider - 23047 22889	Searching for higher studies	doubly linked list, arraylist	Approved	
Group 19	Osama Hameed - 22737	Shortest Paths for Travel Agent Application	Graphs, Binary heaps	Not Approved	Group 1, Group 31 10:17pm

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Group 20	Eisha Haq - 23076 23030 Bilal Ahmad - 22867	AirLine Transportation Network and Booking System	hashing, nested hash table ,Graph, queues	Approved	
Group 21	Syed Muneeb Hoda - 22809 22811 Usman Ghani Bawany - 22850	Discover Quran	hashing, nested hash table , binary tree	Approved	Group 10, Group 15
Group 22	Nawal Irfan – 22805 Vandna – 22275	management system	detail missing	Not approved	
Group 23	Syeda Maham Jafri Isha Haseeb	Game	Array	Not approved	
Group 24	Zahrah Abidi - 23054 Zainab Javed - 23056	Recipes book	table , binary tree, list	Approved	
Group 25	Usman Trimizi - 22888 23045 Yousuf Baig - 23060 22106	Data Encryption	circular Queue, hashing	Not Approved - max 3 members, need to discuss project	
Group 26	Fatima Hasnain Hussain Murtaza Ahsan Ahmed	and word suggestion	Hash table, binary tree	Not approved	
Group 27	Eman Khan Fatima Mustafa Khizer Hayat	Decision tree		Not Approved - not clear	
Group 28	Ali Ahmed Nadeem – 23017 Shaheer Imran Siddiqui – 22810 Abdul Suhaib - 23066	CricPro (Cricket analysis)	Not mentioned	Not Approved	

Group	Members	Project	Data Structures	Status	Conflict	Time
Group 29	Alliya Parvez - 22970 22750 Usaid Bhirya - 22734	Hospital Management System (HMS)	linked lists, arrays, binary search trees, priority queues and hash-tables	Approved		
Group 30	Abdul Rehman Abbasi - 21772 Aiza Khan - 21604 Dua Qadeer - 22820	SpellChecker with AutoCorrect	hashing, BK tree	Approved - must be different from other group	Group 8	
Group 31	Muhammad Mustafa - 22206 22791 22759	Shortest pathfinding	Dijkstra's algorithm and Warshall's algorithm		Group 1, Group 19	7:13pm
Group 32	Asad Virani - 22787 Danish Badar Qureshi - 22890 Saad Riazuddin Mahmood - 22803	ShorText (Text file compression algorithm)	tree, priority queue	Approved	Group 38, Group 5	
Group 33	Muhammad Abdur Rafae 22828 Muhammad Maaz Arsalan Batla 22794 22852	BinArray Dictionary	binary tree, array	Not approved - not clear need to discuss		
Group 34	Muhammad Adil Rizwan - 22977 Talha Ahmed - 22846 22747	DigiDoc	Decision tree	Not approved		
Group 35	Muhammed Nayab Taimour – 23004 Hasaan Ahmed Saeed – 22955 19693	SPELLING CHECKER	Trie trees,	Approved		
Group 36	Ramsha Munawar 22738 Minal Sarwar 22756	JobLink	arrays, binary search trees, and hash-tables	Approved		

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Group 37	M Saad Tariq Sameer Ahmed Khan Mir Hamza Ali	Teacher Evaluation	nested hashing and p	Approved - add more functionality		
Group 38	Omama Mehmood 22746 Tarfiyah Urooj 22815 Zarish Khan 22994	Huffman coding		Not Approved	Group 32, Group 5	11:09