Department Listing: Computer Science Courses in the Fall 2023 Semester

	Number	Sec		Pts Activity	Title Subject	Day Time	Room Building	Faculty
COMS	W1001	001	11190 L	3 LECTURE	INTRO TO INFORMATION SCIE Computer Science	TR 11:40am-12:55	330 Uris Hall	Cannon, Adam H
COMS	W1002	001	11194 L	LECTURE 4 LECTURE	COMPUTING IN ECONOMICS Computer Science	TR 2:40pm-3:55pm	309 Havemeyer Hall	Cannon, Adam H
COMS	W1002	002	11196 L	4 LECTURE	COMPUTING IN ART Computer Science	TR 2:40pm-3:55pm	326 Uris Hall	Cannon, Adam H Santolucito, Ma
COMS	W1002	003	11197 L	4 LECTURE	COMPUTING IN LINGUISTICS Computer Science	TR 2:40pm-3:55pm	313 Fayerweather	Cannon, Adam H Antic, Eugenia
COMS	W1002	004	11545 L	4 LECTURE	COMPUTING IN BIOLOGY Computer Science	TR 2:40pm-3:55pm	415 Schapiro [SCEP]	Cannon, Adam H Persad, Sitara
COMS	W1004	001	11546 L	3 LECTURE	INTRO-COMPUT SCI/PROG IN Computer Science	MW 2:40pm-3:55pm	309 Havemeyer Hall	Blaer, Paul S
COMS	W1004	002	11547 L	3 LECTURE	INTRO-COMPUT SCI/PROG IN Computer Science	MW 5:40pm-6:55pm	417 International A	Blaer, Paul S
ENGI	E1006	001	11300 L	3 LECTURE	INTRO TO COMP FOR ENG/APP Engineering	MW 10:10am-11:25	417 International A	Bauer, Daniel
COMS	W1012	001	11548 L	0 RECITATI	COMPUTING IN ECON Computer Science	R 7:10pm-8:00pm	825 Seeley W. Mudd	Cannon, Adam H
COMS	W1012	002	11198 L	0 RECITATI	COMPUTING IN ECON Computer Science	F 10:10am-10:50a	825 Seeley W. Mudd	Cannon, Adam H
COMS	W1012	003	11199 L	0 RECITATI	COMPUTING IN ECON Computer Science	F 11:00am-11:50a	825 Seeley W. Mudd	Cannon, Adam H
	W1012	004	11200 L	0 RECITATI	COMPUTING IN ECON Computer Science	F 2:00pm-2:50pm	825 Seeley W. Mudd	Cannon, Adam H
	W1012	005	11201 L	0 RECITATI	COMPUTING IN ART Computer Science	F 9:00am-9:40am	825 Seeley W. Mudd	Cannon, Adam H Santolucito, Ma
	W1012	006	11202 L	0 RECITATI	COMPUTING IN ART Computer Science	F 1:00pm-1:50pm	825 Seeley W. Mudd	Cannon, Adam H Santolucito, Ma
	W1012	007	11203 L	0 RECITATI	COMPUTATIONAL LINGUISTICS Computer Science	R 7:10pm-8:00pm	327 Seeley W. Mudd	Cannon, Adam H
	W1012	800	11204 L	0 RECITATI	COMPUTATIONAL LINGUISTICS Computer Science	F 1:00pm-1:50pm	337 Seeley W. Mudd	Cannon, Adam H
	W1012	009	11205 L	0 RECITATI	COMPUTING IN BIOLOGY Computer Science	R 7:10pm-8:00pm	306 Uris Hall	Cannon, Adam H
	W1012 W1404	010	11206 L 20584	0 RECITATI 1	COMPUTING IN BIOLOGY Computer Science EMERGING SCHOLARS PROG SE	F 11:00am-11:50a F 8:40am-9:55am	337 Seeley W. Mudd 413 Hamilton Hall	Cannon, Adam H
	W1404		L INS 20585	SEMINAR 1	Computer Science EMERGING SCHOLARS PROG SE	F 10:10am-11:25a	413 Hamilton Hall	Cannon, Adam H Cannon, Adam H
	W1404	002	L INS 20586	SEMINAR 1	Computer Science EMERGING SCHOLARS PROG SE	F 11:40am-12:55p	413 Hamilton Hall	Cannon, Adam H
	W1404		L INS 20587	SEMINAR 1	Computer Science EMERGING SCHOLARS PROG SE	F 1:10pm-2:25pm	413 Hamilton Hall	Cannon, Adam H
	W1404	005	L INS 20588	SEMINAR 1	Computer Science EMERGING SCHOLARS PROG SE	F 2:40pm-3:55pm	413 Hamilton Hall	Cannon, Adam H
		006	L INS 20589	SEMINAR 1	Computer Science EMERGING SCHOLARS PROG SE	F 4:10pm-5:25pm	413 Hamilton Hall	Cannon, Adam H
	W1404	007	L INS 20590	SEMINAR 1	Computer Science EMERGING SCHOLARS PROG SE	F 9:30am-10:45am	309 Hamilton Hall	Cannon, Adam H
	W1404	008	L INS 20591	SEMINAR 1	Computer Science EMERGING SCHOLARS PROG SE	F 11:00am-12:15p	309 Hamilton Hall	Cannon, Adam H
	W1404	009	L INS 20592	SEMINAR 1	Computer Science EMERGING SCHOLARS PROG SE	F 12:30pm-1:45pm	309 Hamilton Hall	Cannon, Adam H
	W1404	010	L INS 20593	SEMINAR	Computer Science EMERGING SCHOLARS PROG SE	F 2:00pm-3:15pm	309 Hamilton Hall	Cannon, Adam H
	W3102	001	L INS 17021	SEMINAR	Computer Science OBSERVABILITY	M 6:10pm-8:00pm	750 Schapiro [SCEP]	Stolfo, Emily
			L	LECTURE	Computer Science : Class starts October 23	1		
COMS	W3102	002	20662 L	2 LECTURE	FULL STACK WEB DEVELOP Computer Science	F 6:10pm-8:00pm	451 Computer Scienc	Ahamed, Shoaib
COMS	W3107	001	11207 L	3 LECTURE	Clean Object-Oriented Des Computer Science	MW 4:10pm-5:25pm	633 Seeley W. Mudd	Kender, John R
COMS	W3134	001	11208 L	3 LECTURE	DATA STRUCTURES IN JAVA Computer Science	MW 4:10pm-5:25pm	301 Uris Hall	Borowski, Brian
COMS	W3134	002	11209 L	3 LECTURE	DATA STRUCTURES IN JAVA Computer Science	MW 5:40pm-6:55pm	301 Uris Hall	Borowski, Brian
COMS	W3136	001	11210 L	4 LECTURE	ESSENTIAL DATA STRUCTURES Computer Science	TR 5:40pm-6:55pm	451 Computer Scienc	Paine, Timothy
COMS	W3157	001	11211	4	ADVANCED PROGRAMMING	TR 2:40pm-3:55pm	301 Pupin Laborator	Lee, Jae W

		L	LECTURE	Computer Science				
COMS W3157	002	11212 L	4 LECTURE	ADVANCED PROGRAMMING Computer Science	TR 5:40pm-6:55pm	301	Pupin Laborator	Lee, Jae W
COMS W3203	001	11213	4	DISCRETE MATHEMATICS	MW 2:40pm-3:55pm	301	Pupin Laborator	Dear, Tony B
COMS W3203	002	$^{ m L}$	LECTURE 4	Computer Science DISCRETE MATHEMATICS	MW 4:10pm-5:25pm	428	Pupin Laborator	Dear, Tony B
COMS W3261	001	L 11215	LECTURE 3	COMPUTER SCIENCE THEORY	MW 8:40am-9:55am	451	Computer Scienc	Pitassi, Tonian
COMS W3261	002	L 11216	LECTURE 3	Computer Science COMPUTER SCIENCE THEORY	MW 10:10am-11:25	451	Computer Scienc	Pitassi, Tonian
COMS W3410	001	L 11217	LECTURE 3	Computer Science COMPUTERS AND SOCIETY	T 5:30pm-8:00pm	750	Schapiro [SCEP]	Baecker, Ronald
		L	LECTURE	Computer Science				
CSEE W3827	001	11287 L	3 LECTURE	FUNDAMENTALS OF COMPUTER Computer Science and Electrica	TR 11:40am-12:55	309	Havemeyer Hall	Kim, Martha A
CSEE W3827	002	11288 L	3 LECTURE	FUNDAMENTALS OF COMPUTER Computer Science and Electrica	TR 1:10pm-2:25pm	309	Havemeyer Hall	Kim, Martha A
COMS W4111	001	11218 L	3 LECTURE	INTRODUCTION TO DATABASES	TR 1:10pm-2:25pm	301	Pupin Laborator	Gravano, Luis
COMS W4111	002	11219	3	Computer Science INTRODUCTION TO DATABASES	F 10:10am-12:40p	417	International A	Ferguson, Donal
COMS W4113	001	L 11220	LECTURE 3	Computer Science FUND-LARGE-SCALE DIST SYS	F 10:10am-12:40p	451	Computer Scienc	Geambasu, Roxan
COMS W4115	001	L 11221	LECTURE 3	Computer Science PROGRAMMING LANG & TRANSL	TR 11:40am-12:55	451	Computer Scienc	Rav Baishakhi
		L	LECTURE	Computer Science			-	
COMS W4118	001	11222 L	3 LECTURE	OPERATING SYSTEMS I Computer Science	TR 4:10pm-5:25pm	501	Northwest Corne	Nieh, Jason
COMS W4152	001	11223 L	3 LECTURE	Engineering Software-as-a Computer Science	TR 8:40am-9:55am	833	Seeley W. Mudd	Yang, Junfeng
COMS W4156	001	11224	3	ADVANCED SOFTWARE ENGINEE	TR 10:10am-11:25	501	Northwest Corne	Kaiser, Gail E
COMS W4160	001	L 11549	LECTURE 3	Computer Science COMPUTER GRAPHICS	TR 7:10pm-8:25pm	451	Computer Scienc	Fadaifard, Hadi
COMS W4165	001	L 20707	LECTURE 3	Computer Science COMPUT TECHNIQUES-PIXEL P	TR 8:40am-9:55am	545	Seeley W. Mudd	Wolberg, George
COMS W4170	001	L 11225	LECTURE 3	Computer Science USER INTERFACE DESIGN	TR 1:10pm-2:25pm	428	Pupin Laborator	Smith, Brian A
COMS W4181	0.01	L 11226	LECTURE 3	Computer Science SECURITY I	MW 1:10pm-2:25pm	451	Computer Scienc	Jana, Suman
		L	LECTURE	Computer Science			-	
COMS W4186	001	11227 L	3 LECTURE	MALWARE ANALYSIS&REVERSE Computer Science	R 4:10pm-6:40pm	825	Seeley W. Mudd	Sikorski, Micha
CSOR W4231	001	11294 L	3 LECTURE	ANALYSIS OF ALGORITHMS I Computer Science and Operation	TR 8:40am-9:55am	451	Computer Scienc	Roughgarden, Ti
CSOR W4231	002	11296	3	ANALYSIS OF ALGORITHMS I	TR 10:10am-11:25	451	Computer Scienc	Roughgarden, Ti
COMS W4236	001	L 11228	LECTURE 3	Computer Science and Operation INTRO-COMPUTATIONAL COMPL	MW 1:10pm-2:25pm	524	Seeley W. Mudd	Yuen, Henry
CSOR W4246	001	L 11297	LECTURE 3	Computer Science ALGORITHMS FOR DATA SCIEN	TR 11:40am-12:55	833	Seeley W. Mudd	Drinea, Eleni
		L	LECTURE	Computer Science and Operation : MS Data Science students prior	ity registration		_	
CSOR W4246	002	11299	3	ALGORITHMS FOR DATA SCIEN	TR 1:10pm-2:25pm	329	Pupin Laborator	Drinea, Eleni
		L	LECTURE Note	Computer Science and Operation S: MS in Data Science have priori	ty registration.			
COMS W4252	001	11229 L	3 LECTURE	INTRO-COMPUTATIONAL LEARN Computer Science	MW 8:40am-9:55am	428	Pupin Laborator	Servedio, Rocco
COMS W4261	001	11230	3	INTRO TO CRYPTOGRAPHY	TR 10:10am-11:25	142	Uris Hall	Malkin, Tal
COMS W4281	001	L 11231	LECTURE 3	Computer Science INTRO TO QUANTUM COMPUTIN	MW 11:40am-12:55	326	Uris Hall	Yuen, Henry
COMS W4444	001	L 11232	LECTURE 3	Computer Science PROGRAMMING & PROBLEM SOL	MW 1:10pm-2:25pm	327	Seeley W. Mudd	Ross, Kenneth A
COMS W4460	001	L 11233	LECTURE 3	Computer Science PRIN-INNOVATN/ENTREPRENEU	F 10:10am-12:40p	611	Seelev W Mudd	Reinisch, Willi
		L	LECTURE	Computer Science	-		-	
COMS W4701	001	11234 L	3 LECTURE	ARTIFICIAL INTELLIGENCE Computer Science	TR 10:10am-11:25	501	Schermerhorn Ha	Salleb-Aouissi,
COMS W4701	002	11235 L	3 LECTURE	ARTIFICIAL INTELLIGENCE Computer Science	TR 11:40am-12:55	501	Schermerhorn Ha	Salleb-Aouissi,
COMS W4705	001	11236	3	NATURAL LANGUAGE PROCESSI	MW 1:10pm-2:25pm	309	Havemeyer Hall	Bauer, Daniel
COMS W4705	002	L 11237	LECTURE 3	Computer Science NATURAL LANGUAGE PROCESSI	MW 1:10pm-2:25pm	501	Schermerhorn Ha	Yu, Zhou
COMS W4705	032	L 16894	LECTURE 3	Computer Science NATURAL LANGUAGE PROCESSI	W 7:00pm-9:30pm	717	Hamilton Hall	Simion, Andrei
COMS W4731	001	L 11238	LECTURE 3	Computer Science Computer Vision I	MW 10:10am-11:25		Northwest Corne	Nayar, Shree K
		L	LECTURE	Computer Science				
COMS E4762	001	11239	3	ML for Functional Genomic	MW 4:10pm-5:25pm	451	computer Scienc	knowles, David

		L	LECTURE	Computer Science			
COMS W4771	001	11240	3	MACHINE LEARNING	TR 1:10pm-2:25pm	451 Computer Scienc	Hsu, Daniel
COMS W4771	002	$^{ m L}$	LECTURE 3	Computer Science MACHINE LEARNING	TR 2:40pm-3:55pm	451 Computer Scienc	Hsu, Daniel
COMS W4775	001	L 11242	LECTURE 3	Computer Science Causal Inference	MW 4:10pm-5:25pm	750 Schapiro [SCEP]	Bareinboim, Eli
CSEE W4824	001	L 11290	LECTURE 3	Computer Science COMPUTER ARCHITECTURE	MW 10:10am-11:25	501 Schermerhorn Ha	Sethumadhavan,
		L	LECTURE	Computer Science and Electrica			
CSEE W4868	001	11291 L	3 LECTURE	SYSTEM-ON-CHIP PLATFORMS Computer Science and Electrica	TR 11:40am-12:55	633 Seeley W. Mudd	Carloni, Luca
COMS W4995	001	11243 L	3 LECTURE	PARALLEL FUNCTIONAL PROGRAMMIN Computer Science	MW 5:40pm-6:55pm	633 Seeley W. Mudd	Edwards, Stephe
COMS W4995	002	11244 L	3	DESIGN USING C++	F 10:10am-12:40p	608 Schermerhorn Ha	Stroustrup, Bja
				Computer Science : https://www.cs.columbia.edu/fa	-	-	
COMS W4995	003	11245 L	3 LECTURE	MATH MACH LEARN SIG RECOG Computer Science	R 4:10pm-6:40pm	1127 Seeley W. Mudd	Beigi, Homayoon
COMS W4995	004	11246 L	3 LECTURE	TECH INTERVIEW PREP C++ Computer Science	TR 5:40pm-6:55pm	1024 Seeley W. Mudd	Lim, Yongwhan
COMS W4995	005	11247	3	COMPETITIVE PROGRAMMING	M 7:00pm-9:30pm	1127 Seeley W. Mudd	Lim, Yongwhan
COMS W4995	006	L 11248	LECTURE 3	Computer Science EMPIRICAL METHODS DATA SC	MW 11:40am-12:55	415 Schapiro [SCEP]	Levine, Michell
COMS W4995	007	L 11249	LECTURE 3	Computer Science MOBILE APP DEVELOP IOS	TR 4:10pm-5:25pm	451 Computer Scienc	Thomas, Hugh
		L	LECTURE	Computer Science	-	-	
COMS W4995	800	11250 L	3 LECTURE	HACKING 4 DEFENSE Computer Science	T 4:10pm-6:40pm	644 Seeley W. Mudd	Cahill, Jason Blaer, Paul S
COMS W4995	009	11251 L	3 LECTURE	DATA-DRVN DSGN SOCIAL INN Computer Science	F 1:10pm-3:40pm	601 Sherman Fairchi	Verma, Nakul
			Note	: https://www.cs.columbia.edu/fa		-	
COMS W4995	010	11252 L	3 LECTURE	NEURAL NETWORKS DEEP LEARNING Computer Science	MW 2:40pm-3:55pm	451 Computer Scienc	Zemel, Richard
COMS W4995	011	11253 L	3 LECTURE	DEEP LRNG FOR COMP VISION Computer Science	TR 2:40pm-3:55pm	428 Pupin Laborator	Belhumeur, Pete
COMS W4995	013	20652	3	INNOVATION & DESIGN LAB	T 1:10pm-3:40pm	545 Seeley W. Mudd	Zamchick, Gary
COMS W4995	014	L 20725	LECTURE 3	Computer Science Adv Mach Lrng Health &Med	F 2:00pm-4:00pm	253 Engineering Ter	Joshi, Shalmali
		L	LECTURE Note	Computer Science: Also BINF GU 4008 003			
COMS W4995	020	12881	3	APPLIED MACHINE LEARNING	T 4:10pm-6:40pm	833 Seeley W. Mudd	Pappu, Vijay
		L		<pre>Computer Science : Priority for MS in Data Science</pre>	ce.		
COMS W4995	021	12882 L		APPLIED MACHINE LEARNING Computer Science	R 7:00pm-9:30pm	417 International A	Pappu, Vijay
			Note	: Priority for MS in Data Science			
COMS W4995	030	16892 L	3 LECTURE	ELEMENTS FOR DATA SCIENCE Computer Science	M 7:00pm-9:30pm	833 Seeley W. Mudd	Cupallari, Andi
COMS W4995	031	16893 L	3 LECTURE	APPLIED DEEP LEARNING	M 7:00pm-9:30pm	501 Northwest Corne	Simion, Andrei
COMS E6118	001	11255	3	Computer Science OPERATING SYSTEMS, II	R 2:10pm-4:00pm	337 Seeley W. Mudd	Nieh, Jason
COMS E6156	001	L 11256	LECTURE 3	Computer Science CLOUD COMPUTING	F 1:10pm-3:40pm	417 International A	Ferguson, Donal
CSEE W6180	001	L 11292	LECTURE 3	Computer Science MODELING & PERFORMANCE EV	F 1:10pm-3:40pm	233 Seeley W. Mudd	Misra, Vishal
		L	LECTURE	Computer Science and Electrica		_	·
COMS E6184	001	11257 L	3 SEMINAR	ANONYMITY & PRIVACY Computer Science	M 6:20pm-8:10pm	480 Computer Scienc	Bellovin, Steve
COMS E6185	001	11258 L	3 LECTURE	INTRUSION DETECTION SYSTE Computer Science	W 2:10pm-4:00pm	603 Hamilton Hall	Seiden, Mark
COMS E6232	001	11259	3	ANALYSIS OF ALGORITHMS II	W 4:10pm-6:00pm	516 Hamilton Hall	Yannakakis, Mih
CSEE E6863	001	L 11293	LECTURE 3	Computer Science FORMAL VERIF HW SW SYSTEM	W 6:10pm-8:00pm	451 Computer Scienc	Ivancic, Franjo
COMS E6998	001	L 11260	LECTURE 3	Computer Science and Electrica VIRTUAL AND AUGMENTED REALITY	W 2:10pm-4:00pm	337 Seeley W. Mudd	Theobald, Micha Feiner, Steven
	002	L 11261	LECTURE 3	Computer Science NATURAL LANG GEN SUMMARIZ	W 4:10pm-6:00pm	503 Hamilton Hall	
COMS E6998		L	LECTURE	Computer Science			McKeown, Kathle
COMS E6998	004	11263 L	3 LECTURE	ENGR WEB3 BLOCKCHAIN APPS Computer Science	T 10:10am-12:00p	327 Seeley W. Mudd	Yang, Junfeng
COMS E6998	005	11264 L	3 LECTURE	TOPICS IN MOBILE X Computer Science	F 1:10pm-3:40pm	627 Seeley W. Mudd	Zhou, Xia
COMS E6998	006	11266	3	READINGS LANGUAGE DESIGN	R 12:10pm-2:00pm	327 Seeley W. Mudd	Stroustrup, Bja
		L	LECTURE Note	<pre>Computer Science : https://www.cs.columbia.edu/fa</pre>	all-2023-topics-cou	rse-descrip	
COMS E6998	800	11268		HIGH PERF MACH LEARNING	R 7:00pm-9:30pm	326 Uris Hall	El Maghraoui, K

		L	LECTURE	Computer Science			Dube, Parijat
COMS E6998	009	11269	3	FUND SPEECH RECOGNITION	R 7:00pm-9:30pm	1127 Seeley W. Mudd	Beigi, Homayoon
		L	LECTURE	Computer Science			
COMS E6998	010	11270	3	CLOUD COMPUTING & BIG DATA	M 6:10pm-8:00pm	451 Computer Scienc	Sahu, Sambit
		L	LECTURE	Computer Science			
COMS E6998	011	11271	3	MACHINE LEARNING &CLIMATE	T 4:10pm-6:00pm	326 Uris Hall	Kucukelbir, Alp
		L	LECTURE	Computer Science			
COMS E6998	012	11273	3	ADV WEB DESIGN STUDIO	F 12:10pm-2:00pm	1127 Seeley W. Mudd	Chilton, Lydia
		L	LECTURE	Computer Science			
COMS E6998	013	11275	3	ANALYSIS OF NETWORKS & CROWDS	T 12:10pm-2:00pm	1127 Seeley W. Mudd	Chaintreau, Aug
		L	LECTURE	Computer Science			
COMS E6998	015	11279	3	ALGORITHMS FOR MASSIVE DATA	MW 2:40pm-3:55pm	1024 Seeley W. Mudd	Andoni, Alexand
		L	LECTURE	Computer Science			
COMS E6998	016	11281	3	FORMAL VERIFICATION SYSTEM SW	R 2:10pm-4:00pm	627 Seeley W. Mudd	Gu, Ronghui
		L	LECTURE	Computer Science			
COMS E6998	018	11285	3	ALGEBRAIC TECHNIQUES IN TCS	T 4:10pm-6:00pm	825 Seeley W. Mudd	Alman, Josh
		L	LECTURE	Computer Science			
COMS E6998	019	15229	3	CAUSAL TRUSTWORTHY AI	M 6:10pm-8:00pm	327 Seeley W. Mudd	Bareinboim, Eli
		L	LECTURE	Computer Science			
COMS E6998	020	15230	3	TOPICS CLOUD COMPUTING	F 10:10am-12:00p	829 Seeley W. Mudd	Kaffes, Kostis
		L	LECTURE	Computer Science			
COMS E6998	021	15236	3	INTRO PROPERTY TESTING	F 2:10pm-4:00pm	337 Seeley W. Mudd	Chen, Xi
		L	LECTURE	Computer Science			
COMS E6998	022	16561	3	FOUNDATIONS DATA PRIVACY	F 10:10am-12:40p	326 Uris Hall	Cummings, Rache
		L	LECTURE	Computer Science			
			Note	: Cross listing of IEOR 8100 003			
COMS E6998	023	20650	3	INTERNET MEASUREMENT	W 4:10pm-6:40pm	644 Seeley W. Mudd	Katz-Bassett, E
		L	LECTURE	Computer Science			
COMS E6998	024	20651	3	ADV COMPUTER NETWORKS	TR 2:40pm-3:55pm	303 Uris Hall	Katz-Bassett, E
		L	LECTURE	Computer Science			
COMS E6998	025	20663	3	MACHINE LEARNING DATASETS	F 4:10pm-6:00pm	451 Computer Scienc	Marino, Kenneth
		L	LECTURE	Computer Science			

L Code	Course Approval Codes	Day Codes
L Limited Enrollment	D-I Department and Instructor	M Monday
	DEP Department	T Tuesday
	I-D Instructor and Department	W Wednesday
	INS Instructor	R Thursday
		F Friday
		S Saturday
		U Sunday

SIS update 09/23/23 15:05 web update 09/23/23 15:15