Name ((Arabic):	Class:	

Ain Shams University Faculty of Computer and Information Sciences

First Year - Sections12:16 - Midterm Exam



Version 1 (9 am-9:45am) Date: March 21st, 2018

10

Prof. Zaki Taha Dr. Sally Saad

Course: CSW150

Fundamental of Structured Programming Using C++ Please attempt ALL questions, and think before you write.

(a) The statement struct my_struct { int num1, num2; char signs[3]; double result; }; allocates 20 bytes in memory. Fig. Answer: Struct definition allocates ZERO bytes in memory (b) It is the compiler's task to create the executable file for your program. Fig. Answer: → It is the compiler's task to create the object code for your program. or → It is the compiler's task to detect syntax errors for your program. (c) The output of the following code scrap is 3. int my2DArr[][3] = {1,2,3},{4,5,6}}; cout< cmy2DArr[0][2]; Answer: NO EXPLANATION IS REQUIRED HERE QUESTION (2) Code Design QUESTION (2) Code Design REPEAT (numOfElements - 1) times SET the first unsorted element as the m Output: 9.75421 FOR each of the unsorted elements IF element > currentM Partial sorting descendingly → THEN set element as new m (1)	ml	d for false answers.	(3 points)	5-mints	Grade
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SET the first unsorted element as the m FOR each of the unsorted elements IF element > currentM Output: 975421 Partial sorting descendingly →	REPEAT (numOfElements - 1) times				
IF element > currentM Partial sorting descendingly →		Output: 9	75421		
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THEN set element as new m	FOR each of the unsorted elements	Partial so	orting descei	ndingly →	
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	(5 points)	20-mints	
QUESTION (3) Code Development			
Develop an "Automatic Teller Machine (ATM) Service" program that reads from the user bank account information (account number, initial amount, deposit and withdrawal) and displays the final amount of money in the balance. Your Program should define a struct for the client information and should repeat the process for many clients until the user asks it to quit using sentinel value 'n'.			
Sample Run:			
Welcome To ATM Banking Service Please enter your account number, initial amount, deposited amount and : 100 1000 500 200 your balance now is : 1300\$ would you like to repeat (y/n) ? y Please enter your account number, initial amount, deposited amount and : 200 2000 750 150 your balance now is : 2600\$ would you like to repeat (y/n) ? n Thank you for trusting us. Press any key to continue			
<pre>char choice; cout<<"Welcome To ATM Banking Service"<<endl; account="" amount="" amount,="" amount:"<<endl;="" and="" cin="" cout<<"please="" deposited="" do="" enter="" initial="" number,="" the="" withdrawal="" your="" {="">>client.AccNumber>>client.Initamount >>client.deposit>>client.withdrawal; client.amount=client.Initamount+client.deposit- client.withdrawal;</endl;></pre>	 Program outline (#,mainetc) → (User Friendly ou (at least one) → (Struct definition Variable declara professional name Sentinel value loo Input client info Balance equation Output → (0.5) 	0.5) atput msgs (0.5) →(1) tion + nes → (0.5) op →(1) →(0.5)	5

Best Wishes © Prof. Zaki Taha Dr. Sally Saad