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DEPARTMENT OF ELECTRONICS

lame: Patil sugaj shantagam.	
lass: SYBSC [romputer science] Roll No.: 85	Batch :
	ate: / /20
itle of Experiment: Arithmetic and logical probl	lem.
	REMARKS
Am: Anthmatic and logica	y beoplew.
I. String Addition.	
	t number in the string.
3. Hexadecimal to Dec	
4. Decimal to Hexadec	imal.
0	
software: Keil.	
brocegnes to myte and gep	ug progeam.
• To enter a new program.	
I. Enter Keil SOAWare	
2. Ho to project, then select	•
the project by giving the	name to it.
To 1990 the dovice Atmel or	philips their select device
4. GO to FILE and select new	ro
save as Alename. asm.	File, type the program and
	10 1 10-0 0 10 10-1
Traffer moskapace Csta	THE SOURCE GROUP and add
and the to so	uece group by right clicking
6. To build a link select a	add to group.
a live select a	ind puld phion.

	To debug the program:	
-	Live and solect staget and stop option.	
13	when program by selecting debug and run.	
1 2	1 2 CONTITUD OF CT 151 20 CT	
13	seen on the project workspace.	
+	19 VETTE OF SOLITOR	
	29thus has set if 95thathing is	
+	TO CEROLE HEX FIRS:	
1	sound penient then option for tagget, in that select	
 	author select eccepte Hex Files, ox, then rebuild the	
	29th 9th gows on the F	
2	To observe go to file select open, open the pasticulas file	
	with "(LSt") extension.	
3.	This aires the information about address lines, oprodes of	
9 N	the gustenctions of sat some osas of things to	
	3 H 5 1 D - 3 F	
•	Algorithm: Addition of multiple byte numerical string	
Э.	54a8t.	
2.	initialize two strings and memory location where the result	
	is to be stored	
3.	clear carry, inder and counter.	
۷.	Read a byte From Fiest string.	
s.	Read a bute from second string.	
6.	Add the two bytes along with rassy if generated	
7.	store the result in memory location.	
8.	40 FOR the next memory location to store the result.	
9.	Increment index.	
10.	percement count.	
11.	IF count not equal to zero, go to step 5.	

12. Else, store final carry in memory location.	
12. EISE, store final carry in memory location.	
	o ·
13 Stop. gods bloo each total for middle on all	n
· Algorithm: Lagest.	
1. Start Garage Property of the start of the	
2. pefine an Array CA?	
3. initialize indere and counter.	
4. Get AP In Eegistee.	
5. compare Ai and AitI: 10 0011 1000	
6. 15 Ai <= Ai+I, if yes, go to step 10.	
7. If no, swap the bytes.	
3. Increment the index.	or the second
9. Decement countes	
10. It countes not equal to zero then go to ste	
11. If equal to zego, store the largest number	in the
Eegistee.	
12. 1.3-topluse and styd sighten to nothible i malico	
· Algorithm smallest :- man bor a liste acut as hall	in se
1. Start.	
2. befine an alley chi	15
	153.0
2. DEFINE an alley en?	103 10
2. DEFINE an alley (A). 3. Initiaze indere (I) and counter. 4. Het Ai in register.	
2. Define an allay (A). 3. Initiaze indem (I) and counter. 4. Het Ai in register. 5. compare Ai and AitI.	LEA .
2. Define an assay (A). 3. Initiaze indem (I) and countes. 4. Wet Ai in segistes. 5. compase Ai and AitI. 6. Is Ai>= Ai+I, if yes, go to step IO	
2. DEPINE an assay (A). 3. Initiaze indem II and countes. 4. Wet Ai in registes. 5. compase Ai and AitI. 6. Is Ai>= Ai+I, if yes, go to step IO 7. If no, swap the bytes	
2. befine an assay (A). 3. initiaze inder I' and countes. 4. Wet Ai in segistes. 5. compase Ai and AitI. 6. Is Ai>= Ai+I, if yes, go to step IO 7. If no, swap the bytes 8. increment the index.	
2. DEFINE an assay (A). 3. Initiaze index (I) and countes. 4. Wet Ai in registes. 5. compase Ai and AitI. 6. Is Ai>= Ai+I, if yes, go to step IO 7. If no, swap the bytes	

11.	IF equal to zero, store the largest number in the register
12.	stop. Haste, of von
Lapie e c	ade supe of Officed promem: Helt pla com
•	Algorithm: Hexadecimal to Decimal.
1.	Start. + MC II, II VOUR
2.	initialize a hexadecimal number du von
3.	pivide the hexadecimal number by 1000
4.	store the quotionent as hundreds place.
5.	pivide the remainder by 10 1 8 1000
6.	store the quotient of the above division as tens place
7.	store the remainder as units place.
8.	6top. Aghta (), A avoin
	8, A , 5hbn
٠	Algorithm! perimal to Hexaderimal.
コ、	54a8+ E9 3MC
2.	initionize decimal number.
3.	pivide decimal number by 16. Made as soil
4.	ROTALE the quotient left by 4 times.
5.	logically or the semaindes with above sesult
6.	store the result as hexadecimal.
7.	Stop.
2)	program for addition of two strings:
	count equ 04H
Control of the Contro	ong ozooH
	STI: db OFFH, OFFH, OFFH
	org 0220H
	str 2: db offH, offH, offH
	org 0000H 110011 100
	7

CIT-1 CT PARTY SEE SAND mov R3, #00H mov RI, #50H; memory location to save the result cly A. . . Landan ar landand gutterne & mov RD, # count above: mov dptr, #Strl , moved alove. mov A, R3, Ray move A, @ A+dpt mou B, A of set reformation att. mov dptr, # str2, mon Ray chan at retaining of move A, @ A+dptr addc, A,B MON @RIL, Amskings, at there is a file JNC RI INC R3 dinz Ro, above inc exit , and the trailing mov @ RI, #OIH exit: - nop , horrestavad to tuise all end 2) peogeam to find largest number count equ osh and 0500H num: ab454, 204, 564, 104, 154 ord boot Cly A 1112 1111 1111 1111 mov Rg, #ODH

mov R2, # count dec R2 mou dptr, #num mou A, Rz move A, @Ataptr mou B, A 100p: "nc R3 MOU A, R3 mouch, @A+dptr one A, B, Chk simp ok chk: ic ok mov B, A ok : djnz R2, 100p MOVERTIB MOVERTIBLE CONTRACTOR COM end thouse out it is me on the out of . mosposy she shows on acceptance Note: for smallest the program is same as above instead of ic ok, here it will be inc ok. RESULT: 1. Hexadecimal to decimal: Hex value A = 804, R1= 0×0.1 volue: R2= 0x02 R3= 0X 08 2. decimal to Hexadecimal: pecimal value A= 128 H Hex value = R2 = 0×80

3. program for largest number: Array - 45H, 20H, 50H, 16H, 15H RI = OX SOH CONTRACTOR 4. string addition: RI= OX 56 H C= 0200 H C= 0 x 200 = 01 02 03 04 C= 0 x 220 H c = 0x220 ;- 05 06 07 08 D= 50H D = 0 × 50 ;- 06 08 0A 06, 61 , 11 · · · · me have studied assembly language program conclusion :execute the program verify the result we have used Keil nésision to execute ous program. edución serve si corresponde de la directiona con la constitución 11221 M Steller Lowelling