Experiment Alo. 6. c program to stimulate the concept of Ding-philosophers problem.

	Targe 1 / 20
	Experiment No. 6
Aim!	White a c program to stimulate the concept of Dining- philosophers problem.
	philosophers problem
,	objectives: To leave and understand the concept of Dining-
leavini	of Objectives. 10 learn and unclession
	pri to sopries
Theory	4
1	Hall I had for states That
0	m I Take a Long See Fort Children CI Land Control CI
	stick between each pair of miles print
	chopstick between each philosopher
	o to Waliting to Dining Philosopher.
	Each Philosopher is supresented by the following
	pseudo-code;
	process P[P]
	while true do
	THINK;
	PICKUP (CHOPSTICK [1], CHOPSTICK [1+1 mods]);
0	PUTDOWN (CHOPSTICK [1], CHOPSTICK [1+1 mod 5])
	PUTVOWN (CHOPSITERLY), CHOPSITERLY)
	j
	There are three states of philosopher: THINKING, HUNGRY and EATING. Here there are two senaphore Mutex and a senaphore away for the philosophers Mutex is used such that no two philosophers may access the pickup or putdou
	1 CATTAG. House there are two senaphore Mutex and a
	unachous array for the philosophers Muter is used such
	Il t as two philosophers may access the pickup or putdon
	at the same time.
	at the sentence
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Conclusion:
Thus, Daning-philosophers problem is studied
Successfully

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					NO SERVICE	
,						
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			1	Successfu	publica .	is Studied
conc	The Th	us Done	Pa - ph	Placaphous	Out 11	
1000	lugion :					
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## Experiment No. 7.

Aim: White a c program to stimulate contigious memory allocation strategy using a) Best fit b) Worst fit and c) first fit algorithm

	Consider F DATE: 1 120 Jan 7
	Experiment No. 7
	tioning memory afforat
10	12 to a C program to stimulate configuration
tim.	allocation strategy wing
	Strage strategy memory
	White a C program to stimulate contigious memory allocated strategy using strategy memory allocation strategy using a) Best Fit b) Worst fit and c) First Fit algorithm
caunin	ves: To leave and understand the concept of contigious memory allocation structegy.
alifach.	wes: To leaven and understand the
9	allocation Streetegy.
	at the same of the
Th	Contiguous Memory Allocation: Contiguous memory allocation is basically a method in which a single contiguous section, part of memory is allocated to a process as file needing of.
	Configuous Memory Allocation. Configurations section,
	I which a single con I lete needin
	basically is allocated to a process as fire
	part of memory so
	et. 10 D 10 1 let in order ly
	a) Best-Fit ! This method keeps the free pointy
	10 - smallest to largest. In this method, The good
	a) Best-Fit! This method keeps the free/busy list in order by Size-smallest to largest. In this method, the operating system first searches the whole of the memory according to the size of given got and allocates It to the closet to the size of given got and allocates It to the closet for the size of given got and allocates It to the closet
	system first searches I allocates It to the closet -
	to the size of given for and and making it able to
	to the size of given got and account, making it able to
5	the me use memory efficiently. The process
	The allocation technique, the process
	b) Worst Fit = In this allocation technique, the process
	b) Worst Fit of In this allocation recognized and always townswerse townwerses the whole memory and always search for the largest hole partition, and then the process
19 23	search for the largest hole partition, and
	I VIO LE WOODINI I VINTO TICHT
	lecause it has to traverse the entire memory to
	lecause it was to there
	A H language trade
	CI LI WALL THE METHOD REELS THE
	fee I at average out memory general
	to high - ordered memory. In this method, first Job
	to high - ordered memory on this
A 10 10 10 10 10 10 10 10 10 10 10 10 10	

Conclusion = Thus, we have studied contiguous memory allocation strategy using lust fit, worst fot and first-fit allocation successfully. Scanned by Scanner Go

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	claims the first available memory with space more than or equal to its size.
Conclus	Thus, we have studied contiguous memory allocation strategy using best fit, worst fit and first-fit allocation successfully.
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Experiment 16.8 Afm : White a C program to Proplement page replacement algorithms (VLAB)

1) FIRST IN FIRST OUT (FIFO)
2) LEAST RECENTLY USED (LRU) Conclusion: Thus, program to implement concept of page replacement algorithm is studied successfully.

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	PAGE NO: pluskar 8.  DATE: 1 120
-	Experiment No 8.
,	· · · · · · · · · · · · · · · · · · ·
dim:	White a c program to implement page suplacement algoric thms (VLAB)
	1) FIRST IN FIRST OUT (FIFO)
7.5	2) LEAST RECENTLY USED (LRU).
learning	pager suplacement algorithm.
-	Objective
The	ory:
	Page objective suplacement is basic to demand paging. It
	completes the Nepavation letween logical memory and
	physical memory with this mechanism, an entremous
	writual memory can be provided for programmers on a
	smaller physical memory. A FIFO replacement algorithm
	associates with each page the time when that page
	was brought into memory, when a page must be expla-
	ced, the oldest page is chosen bast forequestly used
0	Recently used (IRU) page-suplacement algorithm sequires
	that the page with the simallest count to be suplaced
	Recently used (IRU) page-suplacement algorithm sequires that the page with the simallest count to be suplaced the season for this selection is that an actively used page should have a large reference count.
	page should have a large reference count.
clusion	
	Thus program to implement concept of page verbos set
	algorithm is studied successful
	Thus, program to implement concept of page replacement algorithm is studied successfully.
- A	mar
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Experiment No. 9 allociation Stuategies.

a) Sequential b) Indexed. Conclusion:
Thus, we have studied and complete c program to Stimulate the file allocation structegies

	PAGE NO: DATE / / 20
	Experiment No. 9
	White a c program to stimulate the following file associa- tion streategies.  Sequential b) Included.
	To leave and understand file allocation structegies.
1 h	The Allocation Methods: The allocation methods define low the files are stored in the disk blocks. There we three main disk space or file allocation methods. Seguential Allocation s) Indexed Allocation  Linted Allocation:  The main Pdea behind these methods is to provide:  Afficient disk space utilization.  Last access to the file blocks.
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## Experiment No. 10

process enteres the system, it must declare the maximum number of instances of each suspense type that it may need. This number may not exceed the total number of suspenses in the stystem. When a user lequests a set of suspenses, the system must determine whether the allocation of these suspenses will leave the system is a safe state If it will the suspenses are allocated; otherwise, the process must wait until some other process.

Experiment No. 10. Aim : Write a c program to create a scenerio where when a new proass enters the system, It must declare the maximum number of Instances of each eresource type that It may need This number may not exceed the total number of terrounces. respurces in the system. When a user Requests a set of ecesources, the system must determine whether the allocation State. If it will the, the resources are allocated otherwise, the process must wait until some other process releases enough ensownes (Banter's Algorithm). arring Objectives! To learn and understand the concept of Blanker's Algorithm. repry + Banker's Algorithm is a resource allocation and deadlock avoidance algorithm that tests for safety by structuring the allocation for predetermined maximum possible amounts of all resources. Following data structure are used to Implement the Banker's digonithm. Let in be the number of processes in the system and 'm' be the number of nesources . It is a 1-d array of size 'm' indicating the number of available susources of each type. . It is a 2-d away of xire 'n \* m' that defines the maximum demand of each process in a system. Teacher's Signature \_\_\_\_ ARRISH

Thus a program to Pomplent the Banker's Algorithm is studied successfully. Scanned by Scanner Go

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	Allocation:  It is a 2-d array of stre 'n&m' that defines the number of suspenses of each type currently allocated to each process.  Need:  Meed:  Need:  Need:  Need[:,]=k means process for currently need 'k'  Postances of suspenses type his for 9ts execution:  Allocation specifies the resources currently allocated to process for and Need specifies the additional resources the process for may still suguest to complete its task.
8,11	process Pr may still sequest to complete its task.  Thus a program to implent the Banker's algorithm is  Studied successfully.
	smeare successfully.
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