Assignment No.5 (unit 5)

Q1. What Functions are performed by memory management of OS? (15)

→ 1) Keep track of memory location Allocated or not, if Allocated then which memory and ~~where~~ How much

2) To decide memory Allocation policy. which process should used more memory, when and where

3) We used various techniques and Algorithm to Allocate or deallocates memory location But generally it done using some special hardware

4) Here are Som memory managem ent System

1) Contiguous Real
   i) Single Continguous
      fixed
      variable
2) No-n - Contiguous Real
   Segmentation
   paging
   contain

3) virtual memory managemand
   virtual mumory

Q2. What is partitioning explain fix & variable partitioning

→ 1) Various operating system used partitioned Memory management for Allow multiprogramming partitions means divide your main memory into diff various sections.

2) Basically there are two types partitioning

i) fixed partitioning

ii) variable

i) Fixed partitioning :-

1) In fixed partitioning, partition could be in any size. But once it declared it can't be changed.

2) In this method partioned created at the same time of System generation. At the same time System manager has to declared partition time.

3) Fixed partitioning is also called static partitioned. on declaring fixed partition many operating System declared partitioned description table

ii) Variable partitioning

1) In variable partitioning, number of partitions and sizes are variables

Q3. →

Q4. what is paging explain in details

→ 1) partitioning suffers from internal fragmentation Bez available memory is not contiguous.

2) paging permits a program's memory Allowing to be program to be Allocate to physical memory where it is available

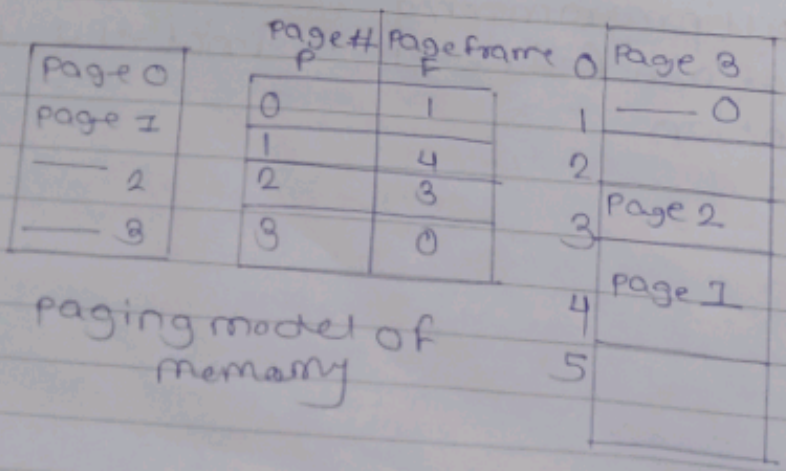
3) your physical memory divide into fixed-Block of code called page fram

4) your logically memory also divide into fixed-Blocked of code called page

5) when program executed ther pages are located into available frame

4) page map table defined to be translate user page from memor frame

5) page size defined By hardwar it is typically a power of 2.



paging model of memory

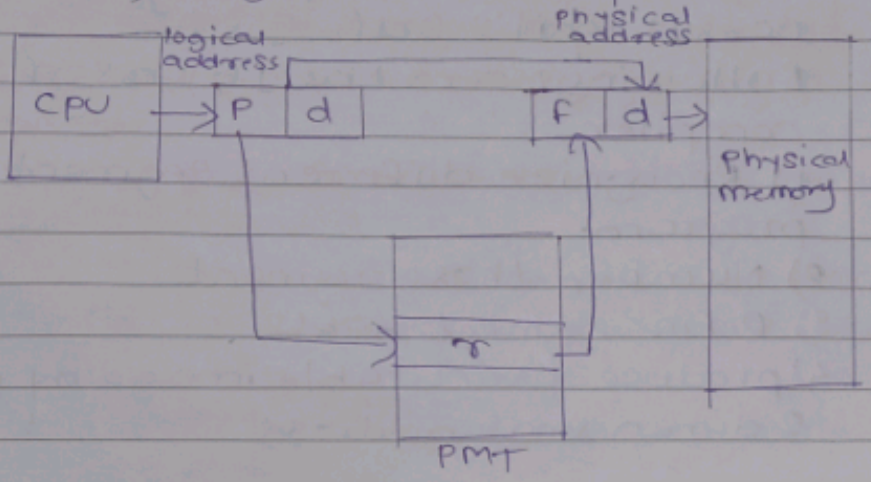
Q5. Wh

→

Every address generated By CPU is divided in two parts

i) page Number

ii) page offset / displacement



Q 5. What is Segmentation

→ 1) Segmentation means logically division of segment generally in the form of variable size

2) Segment is memory management scheme supports user's view of segment

3) Each Segment has Number and length

4) Each program in executable form can be considered to be consisting of different Segment such as code and stack and Each Blongs from different Segments

5) A program normally contains a subprogram, some predefined and precompiled functions

A Application program Does not n... to be declare different segment in ... the program. if more segments ca... not be declared explicitly, compiler ... does it By it's self
Following are the ... jobs of compiler
1) Recognize different segment in th... program.
2) Number those segment
3) Define segment table.
4) produce executable image by assig... 2 dimensional address

Figure

Q8 → tha What is Vintual memory
Page No. 21

Q7. → Explain Demand paging and page Default
Demand paging :-
1) in Demand paging pages Brought only When it demanded
2) considered a proce create program with no pages in the mm ... the process dispatch initially. program counter have to be load with addr... of first

Q8. →

Q.9 →

Q8. what is page Replacement Policy

→ 1) Number of process and pages in memory increased ~~that occr~~ all the page frame occupied

2) AT the time New page Brought in OS has to be overwritten existing page in the memory

3) page to be overwritten Selected By page Replacement policy

4) There many ways where OS Selec te pages to be overwritten. So OS Designer Select once among many such policies and write corresponding Algorithm to it

Q.9 what Algorithm used For page Replacement

→ LRU