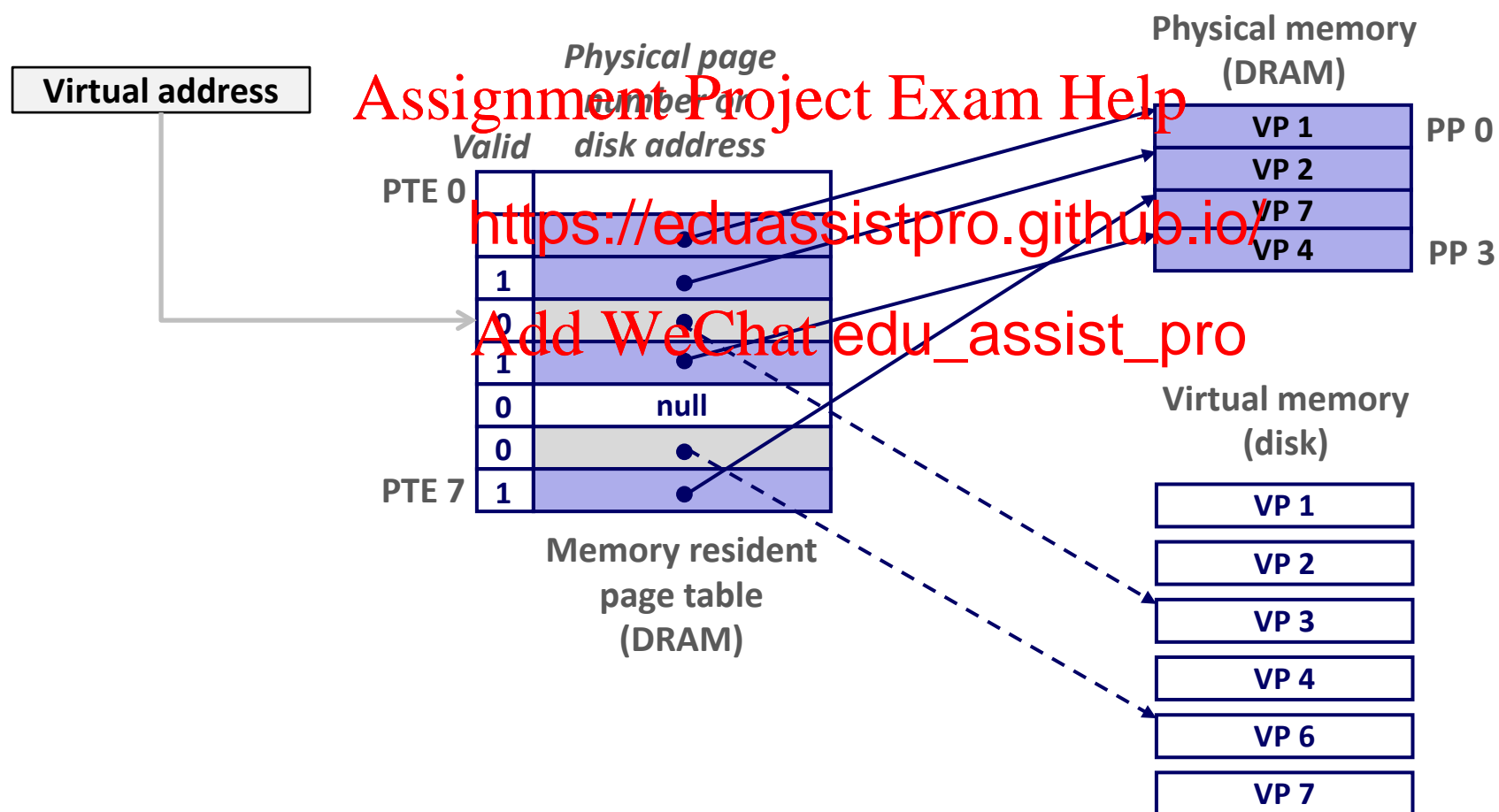


Handling Page Fault

- Page miss causes page fault (an exception)

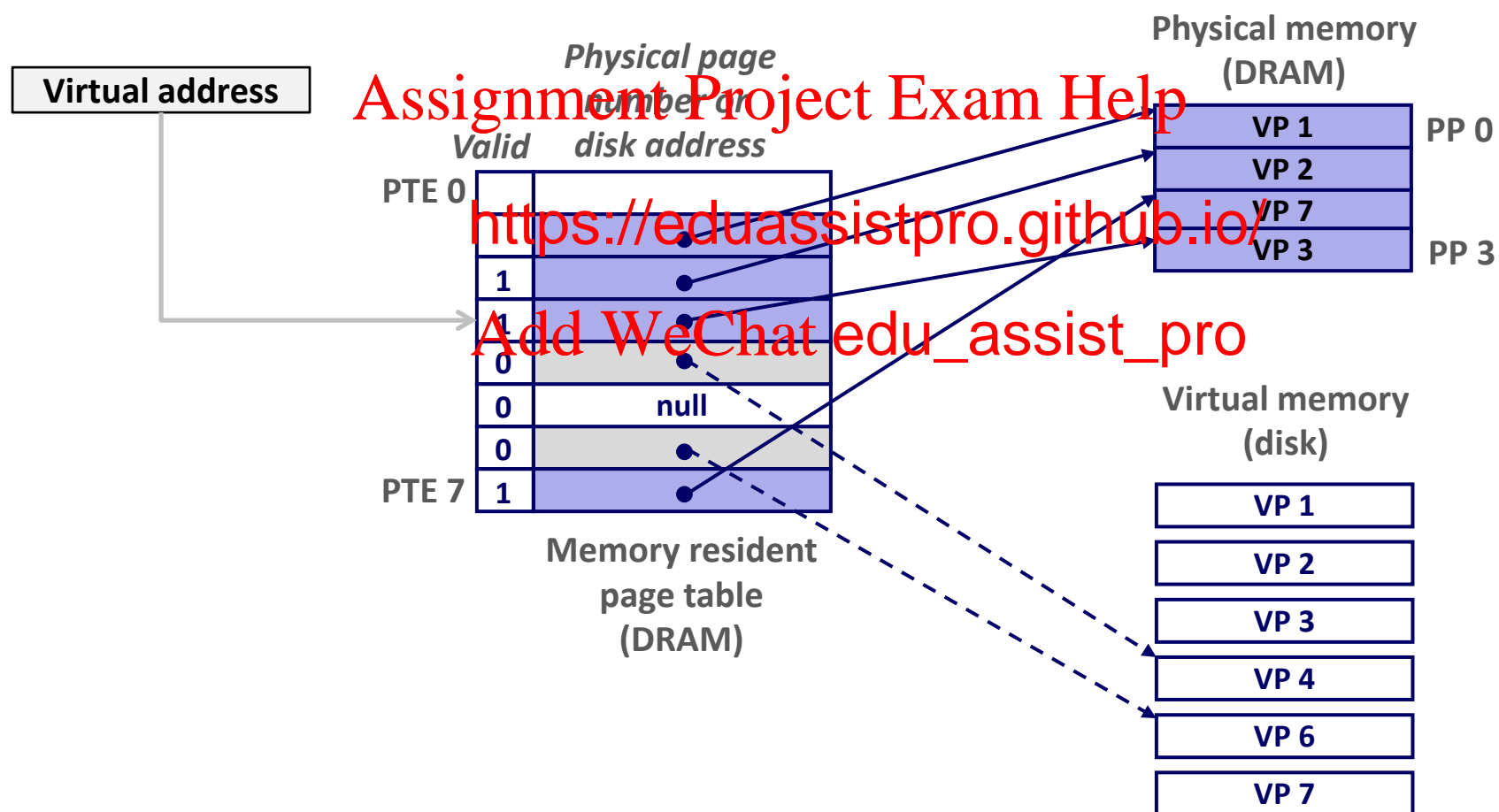


- # Assignment Project Exam Help

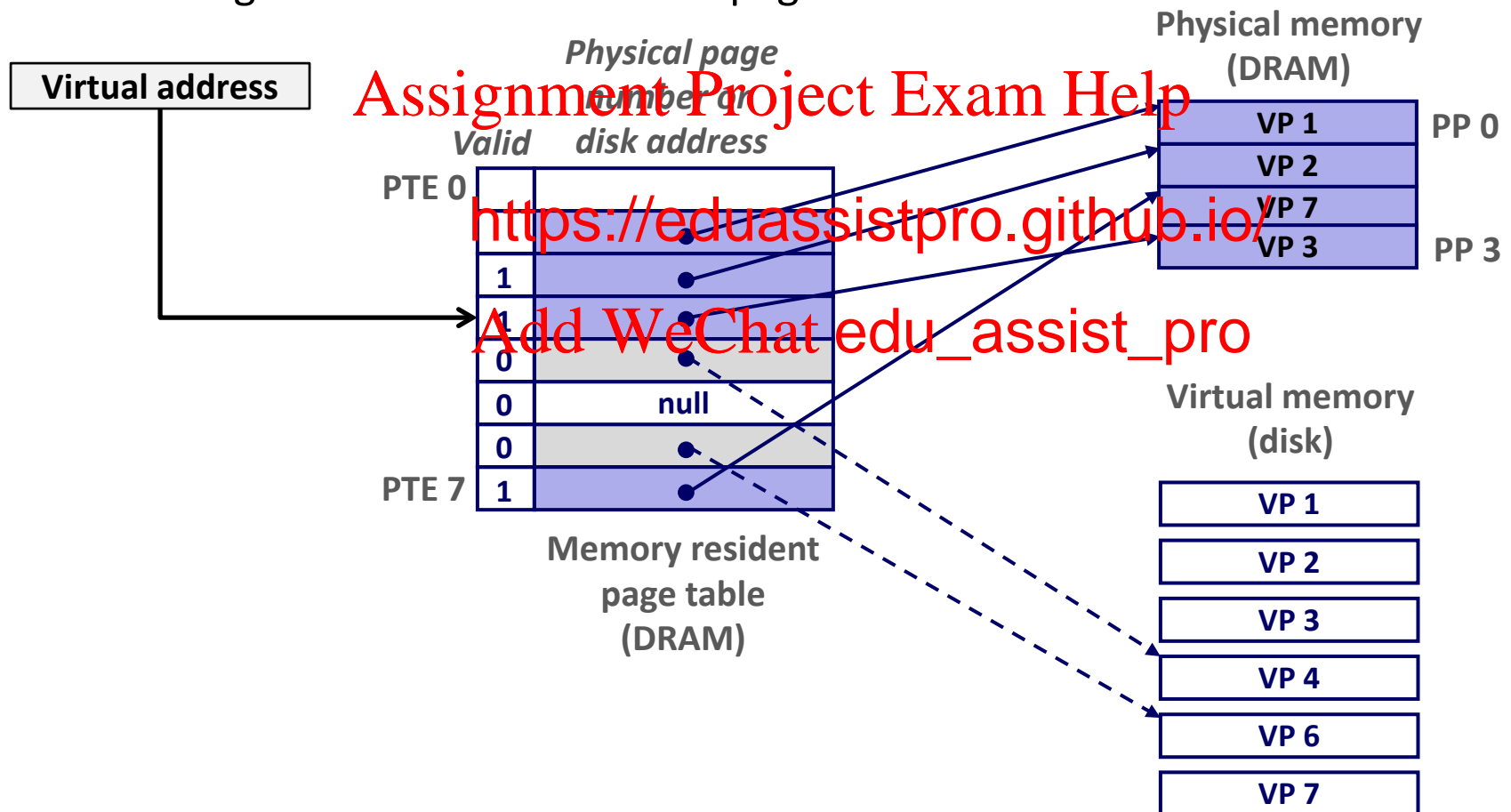


Handling Page Fault

- Page miss causes page fault (an exception)
- Page fault handler selects a victim to be evicted (here VP 4)



- Page miss causes page fault (an exception)
- Page fault handler selects a victim to be evicted (here VP 4)
- Offending instruction is restarted: page hit!



Locality to the Rescue Again!

- Virtual memory works because of locality
- At any point in time, programs tend to access a set of active virtual pages called the *working set*
 - Programs with better temporal locality will have smaller working sets
- If (working set size) \gg main memory size
 - Good performance for one process, many misses
- If ($\sum(\text{working set sizes}) > \text{main memory size}$)
 - *Thrashing*: Performance meltdown where pages are swapped (copied) in and out continuously

Assignment Project Exam Help

<https://eduassistpro.github.io/>

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