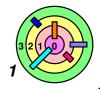


PA1 is due at 11:45pm on Tuesday, 6/3/2025

- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- get started soon
 - if you are stuck, make sure you come to see me during office hours, send me email, or post in the class Piazza Forum



If you haven't received Lecture 1 material, you should watch the recorded video as early as possible so you won't get surprised about *grading*





Grading guidelines is the ONLY way we will grade and we can only grade on a standard 32-bit Ubuntu Linux 16.04 inside

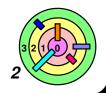
VirtualBox/UTM or on AWS Free Tier

- due to our fairness policy
- the grading guidelines is part of the spec
- although not recommended, you can do your development on a different platform
 - you must test your code on the "standard" platform because those are the *only* platforms the grader is allowed to grade on
- if you make submission, make sure you run through the Verify Your Submission procedure as if you are the grader



I have change the PA2 submission deadline to be the same as the PA3 submission deadline

this makes it similar to Prof. Ryutov's class in fall/spring





I will be out of town this Thursday (to be at my daughter's graduation on the east coast)

- I will record about 120 minutes of Lecture 3 on Zoom and will get them posted on the class website (around 40-45 minutes each)
 - I will make a Piazza post when the videos are available
- no live class in KAP 146 12:30pm 2:50pm this Thursday
- sorry about the inconvenience





- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- get started soon
 - if you are stuck, make sure you come to see me during office hours, send me email, or post in the class Piazza Forum

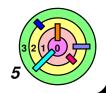




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 - you must test your code on the "standard" platform because those are the *only* platforms the grader is allowed to grade on
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PA1 is due at 11:45pm on Tuesday, 6/3/2025

- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pal-submit" command, the grader will delete them



Grading guidelines is the ONLY way we will grade and we can only grade on a standard 32-bit Ubuntu Linux 16.04 inside
VirtualBox/UTM or on AWS Free Tier

- the grading guidelines is part of the spec
- although not recommended, you can do your development on a different platform
 - you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on





If you make a submission

- read and understand the ticket in web page
 - save the web page as PDF as record of your submission
- make sure you follow the "Verify Your Ticket" and "Verify Your Submission" procedure as if you are the grader
- make sure your README file is perfect
 - if there is anything you are not sure about, please ask me and don't assume that whatever you do will be fine



Remember that you can use your "free late days"

- you don't need my permissions to use "free late days"
- PA1 is only worth 2.4% of your overall grade and a step in the grade is 6%
 - you need to decide if it's worth it to use "free late days" on something that may not affect your letter grade
- once a "free late day" is used, if assignment is graded, you cannot take back that "free late day"





Free modification after deadline only applys to the day after the submission deadline

- and only the first 3 lines of changes are free
- making modification does not change the submission timestamp
- must follow procedure on web page to submit changes



If you cannot finish PA1, you need to try to get as much partial credit as you can (or submit by PA2 deadline for -50%)

- if you want the grader to skip a test, you should give yourself 0 points in the corresponding item in pa1-README.txt
 - if a grader runs a command and it doesn't work, the grader must deduct points according to the grading guidelines





PA2 is due at 11:45pm on Tuesday, 7/1/2025

- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa2-submit" command, the grader will delete them



Grading guidelines is the ONLY way we will grade and we can only grade on a standard 32-bit Ubuntu Linux 16.04 inside
VirtualBox/UTM or on AWS Free Tier

- although not recommended, you can do your development on a different platform
 - you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on





If you make a submission

- read and understand the ticket in web page
 - save the web page as PDF as record of your submission
- make sure you follow the "Verify Your Ticket" and "Verify Your Submission" procedure as if you are the grader
- make sure your README file is perfect
 - if there is anything you are not sure about, please ask me and don't assume that whatever you do will be fine



Remember that you can use your "free late days"

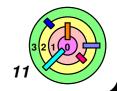
- you don't need my permissions to use "free late days"
- PA1 is only worth 2.4% of your overall grade and a step in the grade is 6%
 - you need to decide if it's worth it to use "free late days" on something that may not affect your letter grade
- once a "free late day" is used, if assignment is graded, you cannot take back that "free late day"





If you cannot finish PA1, you need to try to get as much partial credit as you can (or submit by PA2 deadline for -50%)

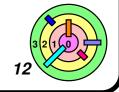
- if you want the grader to skip a test, you should give yourself 0 points in the corresponding item in pa1-README.txt
 - if a grader runs a command and it doesn't work, the grader must deduct points according to the grading guidelines





PA2 and PA3 are sepeate assignments and they will be graded separately

- if you only make a PA3 submission, you will get a score of 0 for your PA2 submission
- I would suggest that when you are done with PA2, make a submission and keep the source in the cs350/pa2 directory and don't touch it
- create a cs350/pa3 directory by copying everything from the cs350/pa2 directory and start working on PA3 in the cs350/pa3 directory
- when you are working on PA3 and discovered bugs in your PA2 code, you need modify your PA2 code in both the pa2 directory and the pa3 directory and make another PA2 submission

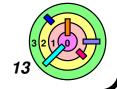




- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa2-submit" command, the grader will delete them



- although not recommended, you can do your development on a different platform
 - you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on





If you make a submission, read and understand the *ticket* in the *web* page and save the web page as PDF as a record of your submission

make sure to "Verify Your Ticket" and "Verify Your Submission"



PA2 and PA3 are sepeate assignments and they will be graded separately

- if you only make a PA3 submission, you will get a score of 0 for your PA2 submission
- I would suggest that when you are done with PA2, make a submission and keep the source in the cs350/pa2 directory and don't touch it
- create a cs350/pa3 directory by copying everything from the cs350/pa2 directory and start working on PA3 in the cs350/pa3 directory
- when you are working on PA3 and discovered bugs in your PA2 code, you need modify your PA2 code in both the pa2 directory and the pa3 directory and make another PA2 submission



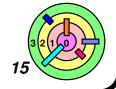
PA2 is due at 11:45pm on Tuesday, 7/1/2025

- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa2-submit" command, the grader will delete them



VirtualBox/UTM or on AWS Free Tier

- although not recommended, you can do your development on a different platform
 - you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on





If you make a submission, read and understand the *ticket* in the *web* page and save the web page as PDF as a record of your submission

make sure to "Verify Your Ticket" and "Verify Your Submission"



PA2 and PA3 are sepeate assignments and they will be graded separately

- if you only make a PA3 submission, you will get a score of 0 for your PA2 submission
- I would suggest that when you are done with PA2, make a submission and keep the source in the cs350/pa2 directory and don't touch it
- create a cs350/pa3 directory by copying everything from the cs350/pa2 directory and start working on PA3 in the cs350/pa3 directory
- when you are working on PA3 and discovered bugs in your PA2 code, you need modify your PA2 code in both the pa2 directory and the pa3 directory and make another PA2 submission



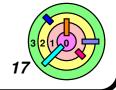
PA2 and PA3 are due at 11:45pm on Tuesday, 7/1/2025

- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa2-submit" or "make pa3-submit" command, the grader will delete them



VirtualBox/UTM or on AWS Free Tier

- although not recommended, you can do your development on a different platform
 - you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on





If you make a submission, read and understand the *ticket* in the *web* page and save the web page as PDF as a record of your submission

make sure to "Verify Your Ticket" and "Verify Your Submission"



PA2 and PA3 are sepeate assignments and they will be graded separately

- if you only make a PA3 submission, you will get a score of 0 for your PA2 submission
- I would suggest that when you are done with PA2, make a submission and keep the source in the cs350/pa2 directory and don't touch it
- create a cs350/pa3 directory by copying everything from the cs350/pa2 directory and start working on PA3 in the cs350/pa3 directory
- when you are working on PA3 and discovered bugs in your PA2 code, you need modify your PA2 code in both the pa2 directory and the pa3 directory and make another PA2 submission



This Thursday is a non-instructional day

- no lecture
- no office hours
- although I will answer email questions and Piazza posts





PA2 and PA3 are due at 11:45pm on Tuesday, 7/1/2025

- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa2-submit" or "make pa3-submit" command, the grader will delete them



- although not recommended, you can do your development on a different platform
 - you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on





If you make a submission, read and understand the *ticket* in the *web* page and save the web page as PDF as a record of your submission

make sure to "Verify Your Ticket" and "Verify Your Submission"



PA2 and PA3 are sepeate assignments and they will be graded separately

- if you only make a PA3 submission, you will get a score of 0 for your PA2 submission
- I would suggest that when you are done with PA2, make a submission and keep the source in the cs350/pa2 directory and don't touch it
- create a cs350/pa3 directory by copying everything from the cs350/pa2 directory and start working on PA3 in the cs350/pa3 directory
- when you are working on PA3 and discovered bugs in your PA2 code, you need modify your PA2 code in both the pa2 directory and the pa3 directory and make another PA2 submission



Midterm exam is [12:30:00pm - 1:10:00pm), Thu, 6/26/2025, USC time

- see News section of class home page
- I have gone over the midterm logistics last week (Lecture 8) and you are expected to be familiar with it
- you can take the exam anywhere that has Internet connectivity
- no class this Thursday



VERY IMPORTANT: at exam end time, you must stop everything and make a submission (if you haven't made a single submission yet)

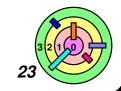
- if you cannot, you must have a video proof that you have lost Internet connectivity at exam end time (see Lecture 8)
- if your submission timestamp is ≥ 3 minutes + exam end time (the right side of a time interval is open), I must deduct 5% for every late minute and cannot make an exception for anyone
 - it's not about when you submit, it's about what's in the *ticket*
 - that's the only timestamp I can go by, and that's why you must start submitting early



- Please sign and submit your *Midterm Honor Code Pledge*
- you will not be able to download your midterm exam if I don't have a signed pledge from you



- If you are registered with the Office of Student Accessibility Services (OSAS) and require specific accommodations, please make sure that I have your paperwork
- You can *opt-out* of the midterm exam and have your final exam account for 70% of your overall grade (actually, if you miss the midterm for any reason, your final will count for 70% of your grade)
 - must let me know via e-mail ahead of time
 - you don't need to tell me why
 - you can still opt out of the midterm even if you have submitted a signed pledge
 - no reason to wait to submit a signed pledge!
 - I do not recommend this at all because having your final exam worth 70% can be super stressful





Please participate in the *midterm exam rehearsal* and try out different scenarios (e.g., disable wifi to simulate loss of Internet connectivity when making a submission)

for the real exam, you cannot say that you submit late because you are not familiar with some of the steps





PA2 and PA3 are due at 11:45pm this Tuesday, 7/1/2025

- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa2-submit" or "make pa3-submit" command, the grader will delete them



you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on





If you make a submission, read and understand the *ticket* in the *web* page and save the web page as PDF as a record of your submission

make sure to "Verify Your Ticket" and "Verify Your Submission"



PA2 and PA3 are sepeate assignments and they will be graded separately

- if you only make a PA3 submission, you will get a score of 0 for your PA2 submission
- I would suggest that when you are done with PA2, make a submission and keep the source in the cs350/pa2 directory and don't touch it
- create a cs350/pa3 directory by copying everything from the cs350/pa2 directory and start working on PA3 in the cs350/pa3 directory
- when you are working on PA3 and discovered bugs in your PA2 code, you need modify your PA2 code in both the pa2 directory and the pa3 directory and make another PA2 submission



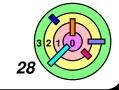
- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa4-submit" command, the grader will delete them



- VirtualBox/UTM or on AWS Free Tier
- although not recommended, you can do your development on a different platform
 - you must test your code on the "standard" platform because those are the only platforms the grader is allowed to grade on
- This Thu and Fri are university holidays, no lectures and no office hours



- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa4-submit" command, the grader will delete them
- PA4 is probably the most difficult assignment
 - it's probably a good idea to start early
 - the last part (graph) may be time-consuming
 - unless you have found a tool that works, you might want to leave that part until the very end so you don't have to re-do the graphs
 - when a thread gives up the CPU volentarily, you get to choose to keep the same priority when it get on the ready list next time (or always use the highest priority next time around)





Grading guidelines is the ONLY way we will grade and we can only grade on a standard 32-bit Ubuntu Linux 16.04 inside
VirtualBox/UTM or on AWS Free Tier

- although not recommended, you can do your development on a different platform
 - you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on



If you make a submission, read and understand the *ticket* in the *web* page and save the web page as PDF as a record of your submission

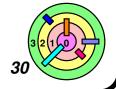
make sure to "Verify Your Ticket" and "Verify Your Submission"



Housekeeping (Lecture 12 - 7/10/2025)



- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa4-submit" command, the grader will delete them
- PA4 is probably the most difficult assignment
 - don't wait too long to start this assignment
 - the last part (graph) may be time-consuming
 - unless you have found a tool that works, you might want to leave that part until the very end so you don't have to re-do the graphs
 - when a thread gives up the CPU volentarily, you get to choose to keep the same priority when it get on the ready list next time (or always use the highest priority next time around)



Housekeeping (Lecture 12 - 7/10/2025)



Grading guidelines is the ONLY way we will grade and we can only grade on a standard 32-bit Ubuntu Linux 16.04 inside
VirtualBox/UTM or on AWS Free Tier

- although not recommended, you can do your development on a different platform
 - you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on



If you make a submission, read and understand the *ticket* in the *web* page and save the web page as PDF as a record of your submission

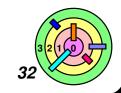
make sure to "Verify Your Ticket" and "Verify Your Submission"





- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa4-submit" command, the grader will delete them
- Grading guidelines is the ONLY way we will grade and we can only grade on a standard 32-bit Ubuntu Linux 16.04 inside

 VirtualBox/UTM or on AWS Free Tier
 - you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on
- If you make a submission, read and understand the *ticket* in the *web* page and save the web page as PDF as a record of your submission
 - make sure to "Verify Your Ticket" and "Verify Your Submission"





PA5 is due at 11:45pm on Tuesday, 7/29/2025

- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa5-submit" command, the grader will delete them
- you can use at most one "free late day" on PA5



you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on



Housekeeping (Lecture 14 - 7/17/2025)



- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa5-submit" command, the grader will delete them
- you can use at most one "free late day" on PA5
- Grading guidelines is the ONLY way we will grade and we can only grade on a standard 32-bit Ubuntu Linux 16.04 inside
 VirtualBox/UTM or on AWS Free Tier
 - you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on
- If you make a submission, read and understand the *ticket* in the *web* page and save the web page as PDF as a record of your submission
 - make sure to "Verify Your Ticket" and "Verify Your Submission"



- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa5-submit" command, the grader will delete them
- you can use at most one "free late day" on PA5
- Grading guidelines is the ONLY way we will grade and we can only grade on a standard 32-bit Ubuntu Linux 16.04 inside
 VirtualBox/UTM or on AWS Free Tier
 - you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on
- If you make a submission, read and understand the *ticket* in the *web* page and save the web page as PDF as a record of your submission
 - make sure to "Verify Your Ticket" and "Verify Your Submission"



- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa5-submit" command, the grader will delete them
- you can use at most one "free late day" on PA5
- Grading guidelines is the ONLY way we will grade and we can only grade on a standard 32-bit Ubuntu Linux 16.04 inside
 VirtualBox/UTM or on AWS Free Tier
 - you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on
- If you make a submission, read and understand the *ticket* in the *web* page and save the web page as PDF as a record of your submission
 - make sure to "Verify Your Ticket" and "Verify Your Submission"



- if you have code from current or a previous semester, do not look at/copy/share any code from it
 - it's best if you just get rid of it
- if you include files that's not part of the original "make pa5-submit" command, the grader will delete them
- you can use at most one "free late day" on PA5
- Grading guidelines is the ONLY way we will grade and we can only grade on a standard 32-bit Ubuntu Linux 16.04 inside
 VirtualBox/UTM or on AWS Free Tier
 - you must test your code on a "standard" platform since it's the only platform the grader is allowed to grade on
- If you make a submission, read and understand the *ticket* in the *web* page and save the web page as PDF as a record of your submission
 - make sure to "Verify Your Ticket" and "Verify Your Submission"



Final exam: Tue, 8/5/2025, [12:30:00pm-1:10:00pm)

- take-home exam, open book, open notes, open Internet
- exam logistics will be the same as midterm
 - see live Lecture 8 on 6/17/2025
- you must also submit a signed final exam honor code pledge in order to be eligible for the final exam
 - this is separate from the midterm pledge



Midterm exam link still works, feel free to use it as rehearsal to get familiar with the exam steps

- for the real exam, you cannot say that you submit late because you are not familiar with some of the steps
- if your submission timestamp is exactly at 1:13:00pm, it will have to be considered as a *late submission*
- starting at 1:13:00pm, you will lose 5% for each late minute
- I must follow all the posted rules and cannot make an exception for any student



Housekeeping (Lecture 18 - 7/31/2025)



Final exam: Tue, 8/5/2025, [12:30:00pm-1:10:00pm)

- take-home exam, open book, open notes, open Internet
- exam logistics will be the same as midterm
 - see live Lecture 8 on 6/17/2025



The final exam coverage has been posted on the class web site

- the coverage does not overlap the midterm coverage
- but since the 2nd half of the semester depends on the 1st half, I cannot say that I will not ask anything that was covered in the midterm coverage or I may get into trouble
 - it would be more appropriate to say that the final exam will focus on the material not covered by the midterm



Calculation-type questions in final

I may ask questions similar to calculations that were discussed in class (e.g., sheduling, throughput, response time, all kinds of performance calculations, ...)

Housekeeping (Lecture 18 - 7/31/2025)



- To be eligible for the final exam, you are *required* to submit a *signed Academic Integrity Honor Code Pledge*
- even if you have submitted one for the midterm, you still have to submit a signed pledge for the final exam
- if I don't get a signed pledge from you, you will get a zero for your final exam, so please take this requirement very seriously



- If you miss the final exam due to documented illness or documented family emergency, you will get a grade of IN
- to complete an IN grade, you will take the final exam within one year
- if you miss the final exam for any other reason, you will get a grade of 0
 - no make-up exam for the final



Housekeeping (Lecture 18 - 7/31/2025)



Please use midterm exam as rehearsal to practice exam procedure

- you cannot say that you submit late because you are not familiar with the submission procedure
- I will follow the rule for late penalty and I cannot make an exception for anyone
 - IMPORTANT: if the exam ends at 1:10:00pm, you must make a submission as soon as the clock hits 1:10:00pm
 - you can make changes later and make more submissions before 1:13:00pm ("before" means "strictly before")
 - if you don't do that and end up making a late submission and that's your only submission, I have to apply late penalty and I cannot make an exception for anyone
- if your submission timestamp is:
 - >= 1:13:00pm and <= 1:13:59pm, I will have to deduct 5%
 - >= 1:14:00pm and <= 1:14:59pm, I will have to deduct 10%
 - >= 1:15:00pm and <= 1:15:59pm, I will have to deduct 15%
 - and so on