This is CS50.
Today

Welcome

Course Structure

Scratch
PART ONE

Welcome
of CS50 students have never taken CS before
what ultimately matters in this course is not so much where you end up relative to your classmates but where you end up relative to yourself when you began
Getting Started

• Browse website at cs50.harvard.edu
• Read syllabus at cs50.harvard.edu/syllabus
• Read FAQs at cs50.harvard.edu/faqs
Expectations

• Watch eleven lectures
• Attend eleven class meetings via Zoom
• Complete ten labs
• Solve ten problem sets
• Take nine quizzes
• Take one test
• Design and implement a final project
Grades

<table>
<thead>
<tr>
<th>Component</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Problem Sets</td>
<td>40%</td>
</tr>
<tr>
<td>Quizzes</td>
<td>10%</td>
</tr>
<tr>
<td>Labs</td>
<td>10%</td>
</tr>
<tr>
<td>Test</td>
<td>20%</td>
</tr>
<tr>
<td>Final Project</td>
<td>10%</td>
</tr>
<tr>
<td>Attendance (at classes)</td>
<td>10%</td>
</tr>
</tbody>
</table>
Grades

- SAT/UNS
- Letter Grade
Grades

• CS concentrators may take CS50 SAT/UNS.
• First years may take both CS50 and a Freshman Seminar SAT/UNS.
• You can take CS50 (SAT/UNS or for letter grade) to fulfill the Gen Ed Science distribution requirement or QRD.
• See FAQs on cs50.harvard.edu for concentrations that require letter grades.
Axes

- Correctness
- Design
- Style
Workload
• https://cs50.harvard.edu/college/2021/spring/syllabus/#academic-honesty
Academic Honesty

• "... be reasonable..."

• "... when asking for help, you may show your code to others, but you may not view theirs..."
• **Regret clause.** If you commit some act that is not reasonable but bring it to the attention of the course’s heads within 72 hours, the course may impose local sanctions that may include an unsatisfactory or failing grade for work submitted, but the course will not refer the matter for further disciplinary action except in cases of repeated acts.
PART TWO

Course Structure
Weekly Schedule

- **Mon**: Lecture, Quiz
- **Tue**: Class
- **Wed**: Tutorials
- **Thu**: Tutorials, Lab
- **Fri**: Tutorials
- **Sat**: Tutorials
- **Sun**: Tutorials, Problem Set
Lectures

• Pre-recorded, watch on Mondays
• Resources
  • Video
  • Notes
  • Shorts
  • Slides
  • Source Code
Classes

• Tuesdays, 3pm-5pm ET
• Attendance expected
• Conceptual review, questions, practice problems, lab
Tutorials

• Wednesdays-Sundays, 30-minute sessions via Zoom
• By-appointment opportunities for help
• 1:3 staff-to-student ratio
• harvard.cs50.me
Quizzes

• Short, open-book, take-home quiz
• Due Tuesdays at 2:59pm ET
Labs

• Short practice problems
• Due Thursdays at 11:59pm ET
• Time during class to work on labs
• Solutions posted on Wednesdays at 11:59pm ET
• Graded pass/fail
Problem Sets

• Due Sundays at 11:59pm ET
• Graded on correctness, design, and style
• Submit form via Google Forms, submit work via Gradescope
Final Project

• Opportunity to develop your own piece of software
• Groups of up to 3
Late Policy

• Late submissions (of quizzes, problem sets, the test, and the final project’s milestones) will be penalized at a rate of 0.1% per minute.

• However, you may grant yourself one 3-day (72-hour) extension during the term for any one problem set.
  • Form on course website, in syllabus.
Support

- Tutorials
- Assigned teaching fellow
- Ed Q&A forum
What questions do you have?
PART THREE

Scratch
event

when clicked
function

input

move 5 steps
repeat 28

loop body

loop
condition

Boolean expression

if touching edge then
variable
Example
when flag clicked

forever

point towards mouse-pointer

move 5 steps

when flag clicked

set score to 0

go to random position

forever

if touching sprite1 then

change score by 1

go to random position
Problem Set 0
Problem Set 0

• Scratch
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