CS 184/284A Spring 2023

Practice Exam 1 (Online)

March 5-6th, 2023

Time Limit: 120 minutes

Name: Kevin Xiong

SID Number: 3035379088

- Please carefully read, sign and submit the Honor Code described on the next page.
- You will need your own blank paper, a pen, a web browser, your class Gradescope account, and an internet-connected device capable of taking and uploading photos (a smartphone is ideal).
- You will have 2 hours to complete and submit your exam on Gradescope. You can choose to start and complete the exam at any time during the 24 hours of March 7th 2023, California time (i.e. 12:01am to 11:59pm).
- During the 24 hour period, you must not communicate with anyone about the exam, including posting to or reading from the internet any information about the exam questions. This is a strict requirement.
- This exam is open book, and open internet, subject to the limitations described above.
- This exam is 120 minutes, and has a total of 10 points. There are 3 pages (including this cover page) and 5 parts. Problem difficulty varies throughout the exam, so move on if you find yourself stuck.
- Show your work and what you know for partial credit.
- For some questions, you will have to write the solution by hand and upload a picture/file to Gradescope. For these, please write out each answer on a separate page and upload a separate file for each question. Uploading time is built into the 2 hours, but if you encounter uploading difficulties you may email your photos to ath@berkeley.edu with subject 'CS184 Exam'.
- For fairness to students taking the exam at different times, the teaching staff will not answer any questions or post any corrections about the exam during the 24 hour period.

Problem	Points	Score
1	0	
2	2	
3	2	
4	4	
5	2	
Total:	10	

1. Honor Code and Academic Integrity Certification

The Honor Code is the commitment and work of students individually and as a community to uphold honesty and integrity. This commitment is comprehensive. Specifically on exams, it means not giving or receiving any help, or using any resources that are not permitted. The Honor Code requires that students take an active role in seeing to it that others as well as themselves uphold the letter and spirit of the Honor Code.

By uploading my signature I certify that:

- All the work submitted in my name for this exam is my work alone.
- I have not given or received any help during this exam.
- I have not used any un-permitted resources during this exam (see cover page for permitted resources).
- I have timed myself and used no more than the allotted time to write my answers for this exam.
- If I become aware of any Honor Code violations related to this exam, I will inform the course staff immediately.

I understand that a false statement on this declaration is a violation of the Honor Code, and would be subject to the highest level of disciplinary sanction under the University Code of Conduct.

1.i. Certification

Signature: Kevin X.

Name: Kevin Xiong

SID Number: 3035379088

Date: 4/19/23

2. (Total : 2 points) True / False (Practice Run Only)

Mark each statement true or false. (1 point each)

(2a) (1 point) I I can enter my true/false selection in Gradescope correctly.

(2b) (1 point) I I am a CS184 student.

3. (Total : 2 points) Graphics Pipeline (Practice Run Only)

(3a) (2 points) Please select both (a) and (c).

A. Select me.

B. Don't select me.

C. Pick me.

D. Don't pick me.

4. (Total : 4 points) Geometry (Practice Run Only)

(4a) (2 points) This is a practice run question where you provide a short text answer correctly. Please write an equation for the circumference of a circle as a function of its radius, r.

(4b) (2 points) This is a practice run question where you submit some code. Write code to compute the sum of the following numbers.

```
int sumListOfNumbers ( const vector <int > & list ) {
  /* Your code answer goes here */
}
```

5. (Total : 2 points) Rendering (Practice Run Only)

(5a) (2 points) Draw a house and label the windows, door and roof.

4a) $C = 2\pi r$

4b)
```
int sum = 0
for (int i=1 ; i < length(list); i++) {
    sum += list[i]
}
return sum;
```

5a)