ACM

26th Annual
The 2008 High School Computer Programming Competition
22 February 2008

Produced by:

The College of Charleston Student Chapter of the Association for Computing Machinery (ACM)

Sponsored by:

The Computer Science Department, College of Charleston
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Co-Located:

The College of Charleston Department of Mathematics' MATHMEET 2008

Contents:

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Motivation

With the 2008 competition, the College of Charleston student chapter of the ACM marks the second year of our new competition paradigm. The state of the practice and the state of education in software engineering emphasize quality. Consequently, the new approach focuses on the quality of the submissions from the competing teams and removes the fastest-to-complete constraint entirely. We focus on both technical quality and artistic quality. *Technical quality* refers to objective evaluations of how well the submitted solutions match the stated requirements. *Artistic quality* refers to subjective evaluations of the organization of the code, the readability of the code and its documentation, as well as the readability of the output files, for example.

In addition, we seek to promote the fun aspects of competition and to create an infrastructure that supports success. Thus, as we did last year, we are providing working skeleton programs for each problem. We are using only the Python language, and these skeleton Python programs demonstrate input and output functionality with exemplar files. The teams will solve each presented problem and introduce their solution into the supplied program. Each problem description will also direct the teams to provide test inputs and outputs as well as documentation for their solution. We will provide a "Syntax-Master" to answer publicly questions relative to program syntax.

Following last year's competition, we received much support from faculty and advisors supporting the changes. Dr. Bowring will present a report of the 2007 and 2008 competitions to the ACM Special Interest Group in Computer Science Education Conference (SIGCSE) in March 2008. The report will be available after the conference.

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Schedule of Events for 22-23 February 2008

22 Feb (Friday), please refer to MAP on next page

4:30 – 5:20 Check-in: (bring registration FORM). Teams arrive and assemble at the JC Long Building room 220. Teams will be assigned workstations and introduced to the competition environment.
5:20 – 5:30 Teams and ACM members walk to Stern Center for banquet.
5:30 – 6:45 Dinner at Stern Center for Students:
- Welcome by Dr. Chris Starr, Chair of the Department of Computer Science
- Guest Speaker (TBA)
- Presentation of Rules with Q&A session

5:30 – 7:00 Dinner at Faculty Dining Hall for Faculty, Team Advisors, Spouses and Children (located across from JC Long Building)
7:00 – 7:15 Return to JC LONG 219 for Faculty Lecture and Judging

6:45 – 7:00 Teams walk back to JC Long 220 and prepare to start competition
7:00 – 9:30 - C O M P E T I T I O N

7:15 – 8:15 Faculty Speaker presents to Advisors and Faculty:
Dr. Bill Manaris (TBA) (JC Long 219)
8:30 – 10:00 - Judging by Faculty in JC Long Lab 218

23 Feb (Saturday), please refer to MAP on next page

3:15 – 5:30 Awards Ceremony at Physicians Auditorium (across George Street from the Stern Center)

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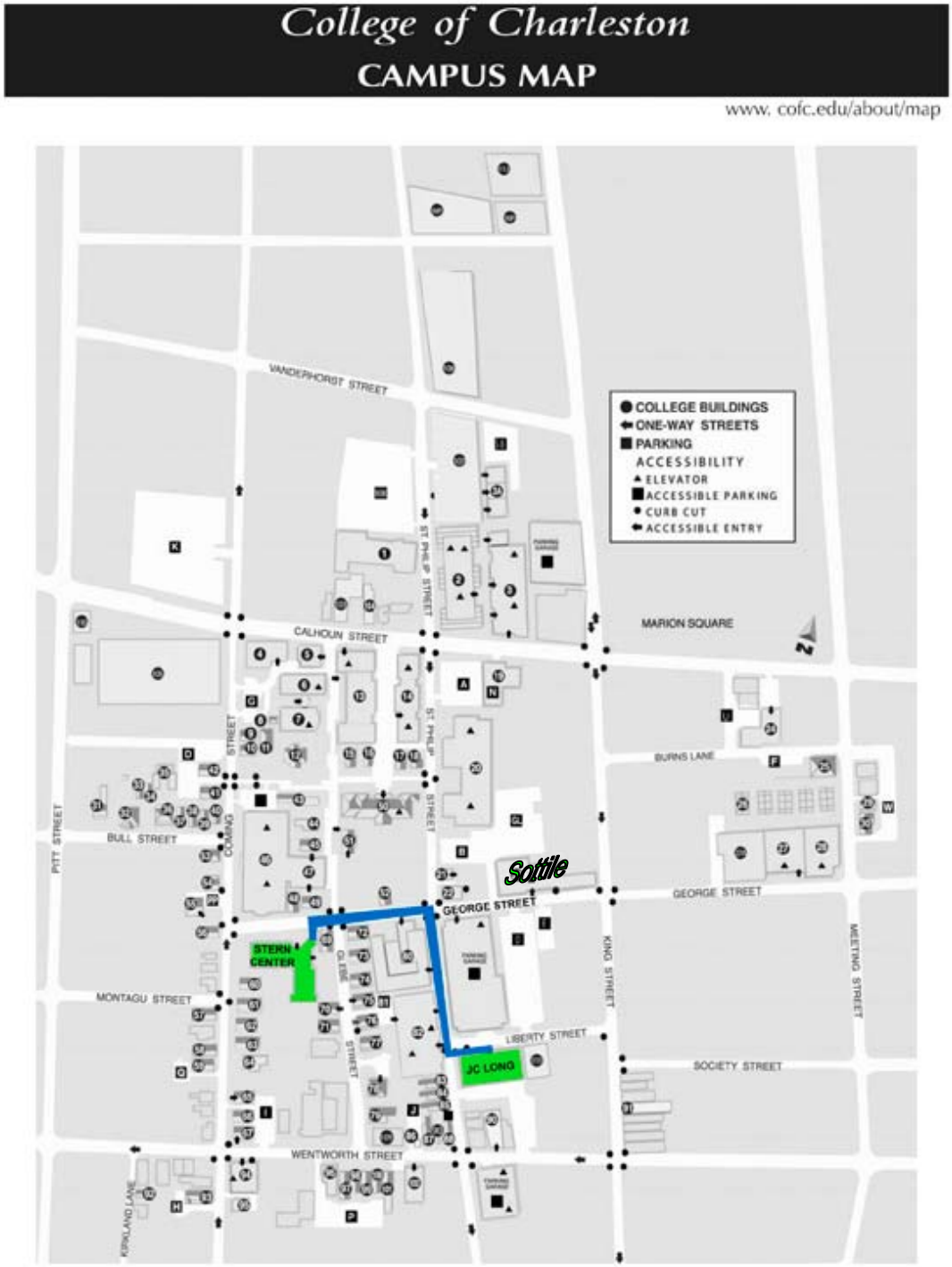
Map of Venues:



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Competition Rules

1. General
    a. Teams will have no more than three members.
    b. The ACM will assign each team a work area, at least one computer, and a **specific private network folder TEAM-1, TEAM-2, etc.,** containing resources and for their deliverables.
    c. Teams may bring books, notes, and electronic storage devices such as jump drives, CDs, and DVDs.
    d. Teams may not bring laptops, PDAs, cell phones, and other similar electronic devices to the competition.
    e. Teams may not bring food or drink into the competition rooms. The ACM will provide snacks and drinks in the hall outside these rooms.
    f. Teams may not access the Internet, including the WWW or Email, etc. during the competition. Teams may consult only ACM members or the Syntax-Master during the competition.
    g. A printer is available for use during the competition. Teams should request that an ACM member retrieve their document for them.

2. Competition
    a. The ACM will provide each team with a Python interface called "IDLE."
    b. The ACM will provide each team with the problem specifications in a public folder "**ACM-PROBLEMS\PROBLEM-1**," for example. This brochure, as well as supporting documents will be available in a public folder "**ACM-RESOURCES**."
    c. Each problem will consist of a problem statement, a solution specification, and a working skeleton program.
    d. The ACM will provide a person known as the "Syntax-Master" who will answer questions about syntax in Python.
    e. Teams will create solutions in folders named "**TEAM-#\PROBLEM-1**," etc. as specified in each problem statement.

3. Scoring will be based on technical and artistic merit as illustrated by the following lists:
    a. Technical Merit based on how well a team (or team's)
        i. Followed instructions correctly
        ii. Program passes judges test suite
        iii. Input file covers the judges' test suite
        iv. Output file conforms to specifications
    b. Artistic Merit based on how well a team (or team's)
        i. Documented their solution
        ii. Program is readable
        iii. Solution has conceptual integrity

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Prizes:

Each of the first four teams will receive a trophy.

Each member of the First Place team will receive an iPod shuffle

Each member of the Second Place team will receive a

4 GB USB Flash Drive

Good Luck Teams !!!

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Final Registration

*** * * Please fill out this form and bring it with you to check-in on 22 Feb. * * ***

School Name: _____

Team Name: _____

Advisor Name: _____

Telephone: _____

E-mail: _____

Student 1 Name: _____

E-mail: _____

Student 2: Name: _____

E-mail: _____

Student 3: Name: _____

E-mail: _____

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Resources for Teams

Python and IDLE are available at http://www.python.org/download/ .

Python Tutorial at: http://www.hetland.org/python/instant-python.php .

College of Charleston Department of Computer Science Python Intro
is available at: **http://www.cs.cofc.edu/~acm/hscomp/PythonIntro.pdf .**

The Python programs that illustrate the Python Intro
are available at: **http://www.cs.cofc.edu/~acm/hscomp/PythonPrograms.zip .**

This brochure is available at:
http://www.cs.cofc.edu/~acm/hscomp/CofC2008_HS_Prog_Comp_Details.pdf

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