

Sid is a developer at BitBucket Software. He is part of a team of developers maintaining software for BitBucket's largest client. In studying part of the code he is maintaining, he has found several header and implementation files with authors and email addresses not connected with BitBucket. In trying to identify the source of the code, he has identified files with identical code (though with a different set of author names and email addresses) in an online repository under an open-source license. He has been unable to identify the original source of the code, and does not know if the code is specifically licensed for use by BitBucket or not. The usual comments indicating who brought the code into BitBucket's project, and why, are not present. Sid has taken his concern to Mark, his team leader. Mark told Sid that the code in question is scheduled to be reviewed and revised, possibly completely rewritten, in the next review cycle—about a year off. In the meantime, the company has been using the code, there haven't been any problems, so Mark says there's nothing to worry about.

BitBucket is also preparing to post a request for bids to hire out the testing for migrating their code to a cloud platform. The request will be posted the following week; in the meantime, Sid has emailed a copy to J.D., a friend of his from college, who has done similar contract work for BitBucket in the past. Sid describes the project in some detail, going beyond what will be in the ad when it goes public. Sid offers to put in a good word for J.D. if he submits a bid, but as Sid isn't on the committee that makes the final decision, he can't make any promises beyond that.

On the weekends, Sid sometimes comes into the office and uses his development workstation to work on a personal project involving game programming. He has informed Mark of this, and Mark says it's not a problem, provided BitBucket gets the first chance to bid on any commercial product that results. (This "right of first refusal" offer is within Mark's authority to make.) On occasion, Sid sometimes relaxes during his weekend work sessions by browsing to several adult websites. He reasons that as long as he's alone in the office, it's not during working hours, and his office door is closed so no one is exposed to anything they don't want to be, no harm is being done.

Meanwhile, Mark is also working on another, larger project. He is trying to incorporate some data-mining capability into BitBucket's database product. He has been consulting with Harry, a professor at nearby Wassamatta U. Harry's research focuses on data mining, and he has published extensively in the field. Harry has provided, for his standard consulting fee, his

recommendations concerning three different commercial products and toolkits, discussing the relative strengths and weaknesses of each, taking cost and BitBucket's needs into consideration. One of the products is produced by a former student of Harry's; Harry sits on the Board of Directors of that company, and holds a 5% passive interest in the company (meaning he is a part-owner of the company and gets a share of the profits but is not involved in day-to-day operations or decisions). Harry discloses early in his memorandum that he is friends with and a mentor of the founder of one of the companies (he specifies which company). He also discloses his financial relationship with the company. Harry does not disclose that another of the products reviewed is produced by a professional rival with whom he was quarreled bitterly in the past. Harry provides a detailed justification as to why the product produced by his former student is the best fit for BitBucket's stated needs and budget.

Mark has examined the products and toolkits in question, and recommended purchase of one of them. He is also realizing this project is pushing against the limits of what he knows. He has identified and ordered two reference books, and requested funding to attend a three-day data-mining programming workshop to expand his skills before proceeding with the project.

Mark's manager, Peggy, is inclined to approve the request, though the training budget is limited. But as BitBucket expands its products, the data mining capability will become more important. At the moment, she is more concerned about the output of one of her programmers, Ron. Ron has developed a reputation within the company for sloppy work, and in reviewing his code, Peggy is inclined to agree. There are a number of errors in code she examines, and analysis of bug reports indicate a disproportionate number come from Ron's code. She has discussed this with Ron. Ron is angry at having his competence questioned, and has argued that he has had too many right-this-minute projects dumped on him to keep up with new programming techniques. He points out that he was denied time off to attend a week-long training seminar, because the topic of the seminar was not directly related to his current role. Peggy is preparing a memo for Ron explaining the problem with his work, and giving him several options for training and mentoring, along with a warning that if his work does not improve, in ways spelled out in the memo, she will have no choice but to fire him.

Finally, there is the latest upgrade to the electronic medical-records project. The original estimates for the upgrade called for a 6-month schedule. This was reviewed thoroughly by everyone involved and considered realistic at the time. However, with 4 weeks to go, it has

become obvious that the project will not be fully completed to specification by then. The development team believes the deadline should be pushed back at least two weeks to allow the full testing regimen to be carried out. Frank, the project manager, is under pressure to ship the product on time. If the project is late, the company is likely to receive bad publicity, and lose business to BitBucket's primary rival. He has therefore selected the most important tests to be run; if the upgrade passes all of them, he will sign off that the software meets the specification, and any remaining bugs can be caught in the next maintenance release. Likewise, he has told Tina, the project's technical writer, that rather than her proposal to review all documentation from page 1 to ensure it's still accurate with recent software changes, she should focus on the portions with the most changes; a revised user manual and updated help files can always be shipped later.

Analyze the behavior of Sid, Mark, Peggy, Harry, and Frank according to the ACM Code of Ethics & Professional Conduct (2018 revision). For each, identify all sections of the code that are involved. In cases where someone's actions are questionable or in violation of the Code, what should be done instead? If you need further information to make a determination, what information do you need and how will that affect your determination?