

Topic : Applying IEEE-ACM code of

Ethics for Software Engineers in

Bangladesh : A Case Study

Group Members :

Serial	Name	ID
1	Israt Jahan Isha	17201001
2	Biswambor Sarker	17201005
3	Rakefa Tus Sabah	17201024
4	Niamul Hasan	17201026
5	Tahura Nazzin	17201031
6	Md. Abdur Rahman Emon	17201032
7.	Md Habibullah Sheikh	17201049

Reg : 17201001

Name: Israt Jahan Isha

IEEE - ACM Code of Ethics :

Engineers affect the quality of life for all people in our complex technological society. In the pursuit of their profession, therefore, it is vital that engineers conduct their work in an ethical manner so that they merit the confidence of colleagues, employers, clients and the public.

Software engineering code of Ethics and professional as recommended by the ACM/IEEE CS joint Task force on software engineering Ethics and professional judgment practices and jointly approved by the ACM and the IEEE-CS as the standard for technical and practicing software engineering.

This IEEE code of ethics is a standard of professional conduct for engineers. As this code expresses the consensus of the profession on ethical issues, it is a means to educate both the public and aspiring professionals about the ethical obligations of all software engineers.

The reasons for following the code of ethics are discussed below:-

- (I) General moral imperatives :- A software engineer must ensure integrity and accuracy of personal data. He/she must take precautions to prevent unauthorized access. No discrimination based on race, gender, religion or disability should be allowed. Duplication of materials without permission must not be tolerated.
- (II) More specific professional responsibilities :- A software engineer should strive to achieve highest quality and effectiveness in both the process and products of professional work. also keep the technical skills up to date. He should accept and have expert evaluation as required.
- (III) Organizational leadership imperatives :- A software engineer should manage personnel and resources to design and build information systems that enhance the quality of working life.
- (IV) Compliance with the code :- A software engineer should ensures commitment to the code by stating that a computing professional should uphold, promote and respect the principles of code. Some of the bigger changes include adding new sections requiring security by design. Example:- google has a higher level of responsibility for serving the public good.

Ethics in software Engineering:

Software engineering ethics are a subset of engineering ethics and professional ethics applied to the design and development of software system. Software engineering ethics can be approached from three directions.

1. It can describe the activity of software engineers making practical choices that affect other people in significant way.

2. It can be used describable collection of principles, guidelines or or ethical imperative that guide or legislative action.

3. It can be used to name a discipline that studies the relationship between the other two senses of ethics.

Software engineers shall act in manner that is the best interest of their client ~~is~~ consistent with public interest. They shall maintain integrity. So, software engineers must follow the 8 principle of code of ethics.

The 8 principles of code of ethics are given below:

1. Public: Software developers are expected to work in public interest.
2. Client and employer: Software engineers shall act in the best interests of their client.
3. Product: Software developers ensure that their products and modifications follow the highest professional expectations.
4. Judgement: Software engineers shall maintain integrity and independence in their professional judgment.
5. Management: Software engineers must encourage an ethical approach to software development and maintenance.
6. Profession: Software engineers should promote the profession's credibility and reputation in the public interest.
7. Colleagues: Software engineers shall be fair to and supportive of their colleagues.
8. Self: Software engineers must continue to learn about their field and promote an ethical approach to throughout their careers.

Principle 1

Public Interest

Ethics has long been a part of engineering education and practices. Engineering ethics is the field of study of moral principles that apply to practice & concern for professional practice and protecting the public.

Guiding principle for public:

- Engineers need to ensure that the software is good for those who use it and not bad for the public.
- If software have any problem then it inform the public first.
- Software Engineers accept full responsibilities for their own work.

My senior brother doing job in a software firm. I asked him about the code of ethics how they follow or maintain the rule.

He said that, those company who are properly done the work. usually they are try to follow the code of ethics.

In the other hand some software users they face many problems. those software engineers are don't follow the rule as well. so, all software engineers try to follow the code of ethics.

Principle 2 - Client and employer:

Software engineers shall be honest and impartial and serve with complete fidelity the public, employer and clients. Software engineers shall not accept remuneration for services rendered other than that from my employer's permission.

An alumni student, Rafi Rahman said that in Bangladesh a developer team gives the highest priority to the client's interest and to satisfy the client often they do not take the public interest in their consideration.

In Bangladesh often seen a case like that, a software engineer is committed to do work for a client. But when another work comes, which seems more profitable, that software engineer tries to go for the more profitable work by holding or delaying the previous clients work. So, the principle 2 of ACM code of ethics not being well received, in Bangladesh.

3. Products

Software engineers shall ensure that their products and related modifications meet the highest professional standards possible. In this section software engineer shall ensure that there is no lackings in this product. They shall maintain higher quality of the product. Strive for high quality, acceptable cost and a reasonable schedule, ensuring significant trade-offs are clear to and accepted by the employer and the client and are available for consideration by the user and public. Ensure proper and achievable goals and objectives for any project on which they work or propose. Identify, define and address ethical, economic, cultural, logical environment issues related to work. Treat all forms of software maintenance with the same professionalism as new development.

Judgment: This code of ethics indicate that the software engineers shall maintain integrity and independence in their professional judgment. This ethic is important for the engineers of every level and field.

In our country, although this code of ethics is teached in education institutions but we are hardly concern about maintaining this in our workplace. All engineers shall maintain or follow professional judgment in percticulate software engineers shall maintain professional activity with respect to any software or related documents they are asked to evaluate. They should not engage in deceptive financial practices such as bribery, double billing or other impropere financial practice but sometimes engineers of BD failed to maintain this ethics and this is very regretful for us.

Professional judgement is very significant since it instruct the software engineers to temper all technical judgments by the need to support and maintain human values. And by maintaining this properly the engineers of Bangladesh can commit themselves to making software engineering a beneficial and respected professions.

(5) Management :- Software engineering managers shall subscribe to and promote an ethical approach to the management. They should assign work only after taking into appropriate contributions of education and experience. They should not punish anyone for expressing ethical concerns about a project also do not unjustly prevent someone from taking a position for which that person is suitably qualified.

Managers or leaders of our software industries hardly maintain these ethics. Like A manager should do all analyses and if an issue arises during the project, he should resolve it but in most of the cases managers hand over this responsibility to their workers.

Sometimes managers discourage an employer from filling a vacancy of the company for which that person is eligible and instead giving it to his preferred employer which directly violates the code of ethics.

There is some tendency among managers that they don't give proper credit to the employees for their hardwork. However, this should not be the case, An employee should be given proper credit with the benefit that the company gained as promised.

Profession:

Profession is the 6 no. principle in ACM-IEEE code of ethics. A professional software engineer should maintain honesty or integrity and reputation of the profession consistancy with public interest. In Bangladesh, this ethics are important of every level and every field. Software engineers try to do a good job and think about the environment, in Bangladesh. They promote public knowledge like some of them publish tutorial on utube. All professional software engineers have proper documentation on which they work. But some engineers do not follow this code of ethics in our country. sometimes, They promote their own interest. They deceive the client through false propaganda. Most of them do not support others who are striving to follow this code of ethics. This ethics will be developed in Bangladesh, when professional software engineers become consciousness, responsible and integrity of their work. They will attend conference or meeting to extend the knowledge of this ethics.

Colleagues: The code of ethics indicate that the software engineers shall be fair to and supportive of their colleagues. Assist colleagues in professional development. Review the work of others in an objective, candid and properly documented way. This ~~ethic~~ ethics ethic is important for the engineers of every level and field.

In our ~~country~~ country, this code of ethics is included in Bank. All employee full respect to others, work. Examine the work of others in a neutral, candid, and well documented manner.

Every employee try to follow or maintain the rule. All employee properly done the work. And also they are try to flow the code of ethics in Bangladesh. Because this ethics is developed in Bangladesh.

Principle: 8

Self

A code of ethics is a guiding set of principles intended to instruct professionals to act in a manner that is honest and that is beneficial to all stakeholders involved. Bangladeshi software engineers shall participate in life long learning regarding the practice of their profession and shall promote an ethical approach to the practice of the profession.

- knowledge about software specification, design, development maintenance and testing. Software engineers in bangladesh who gain knowledge about more advance things
- Improve self knowledge day by day. like today g made a game for android. The next day g learned to work and made a game for ios.
- Improve and understanding of the software and related documents. In the case of bangladesh, good companies look at the documentation and do the project.
- software should be created in accordance with the law. In the case of bangladesh they try to create software in accordance with the law because if someone else's code is used here, it becomes a copyright rule.

Now software company of bangladesh try to follow the rules if they maintain those things it will be very useful for the engineers.

Case study:

We talked to some software engineering professionals [(Rafi Rahman, IOT Engineer at DataSoft), (Towfique Ahmed, Software development engineer at Editor Apps Inc)], about the topic : ACM code of Ethics for the Software Engineers in Bangladesh.

We found. In our country, software engineers do not follow the ACM code of ethics in their work properly. They do not instructed to follow the ACM code of ethics. Moreover, it has found that software engineers in Bangladesh, do not have a clear idea about the ACM code of ethics and they very little likely to motivated to know and follow the ACM code of ethics.

On the other hand, the maximum number of students of CSE are not enough self-motivated to gather a piece of clear and proper knowledge about the ACM code of ethics.

Now, these are the reasons, for which the ACM code of ethics is not properly maintaining by the software engineers.

Conclusion

Software engineering involves a large number of professionals to come together with utmost coordination. It is therefore necessary that all code of ethics in this field be followed by all members and stakeholders so as to be loyal to their duties and minimize conflict and errors. This will ensure that end products delivered by software engineers or software engineering bodies be meaningful and best standards.