- 1. Software project managment is the art and science of planning, leading software project.
- 2. Software quality metrics are subset of software metrics
- 3. Scrum is an efficient framework within which you can develop software with teamwork
- 4. Answering the question What do we have to do to have a success?
- 5. Monitoring is the systematic process of collecting, analyzing and using information to track a programme's progress toward reaching its objectives and to guide management decisions
- 6. The Monte carlo method is a mathematical method for
- 7. Once data has been collected about project progress, a manager needs some way of presenting that data to greatest effect.
- 8. Earned Value Analysis (EVA) is an industry standard method of measuring a project's progress at any given point in time, final cost, and analyzing variances in the schedule and budget as the project proceeds.
- 9. A virtual team (also known as a geographically dispersed team, distributed team, or remote team) is a group of individuals who work across time, space and
- organizational boundaries with links strengthened by webs of communication technology

10. Project software management is a collection of techniques used to develop and deliver various Types of software products

11. a. The dictionary definitions put a clear emphasis on the project being a planned activity. The other definitions include

_ A Specific plan or design _ A planned undertaking _ A large undertaking

characteristics:

- Non-routine tasks are involved Planning is required
- Specific objectives are to be met

The project has a predetermined time span

- Work is carried out for someone other than yourself - Work involves

12. b. Resource allocation in software development is important and many

methods have been proposed. Related empirical research is yet scarce and

evidence is required to validate the theoretical methods. This paper introduces the staffing pattern as a metric of resource distribution among

project phases, and verifies its effect on software quality and productivity using real project data.

The main findings are: (1) there exist different staffing patterns in reality; (2)

the staffing pattern has significant effect on software quality (post-release defect

density);

counteracts the effect of other potential factors on productivity. Preliminary

heuristics are suggested to resource allocation practices.

We name these as staffing patterns as follows:

Test-centric pattern (abbreviated Test). The staffing levels are relatively low in

early phases, but increase in test and transition phases. The increasing level in

test phase may be the result of intensive testing by a special team (in-house or

outsourcing), or fire-fighting for too many bugs. The software quality may be high,

because the staffing level in early phases is also stable and the situation is the

same as Fix-staff pattern. Moreover, it is possible that high staffing level in test

or transition phase detects and removes more defects before delivery. Similar to

Fix-staff pattern, its productivity is hard to be determined.

B. b. Formulating a network model

The first stage in creating a network model is to represent the activities

and their relationships as a graph. In activity-on-node we do this by representing activities as nodes in the graph-the lines between nodes represent dependencies.

Constructing precedence networks

A project network should have only one start node. A project network

should have only one end node. A node has duration.

Links normally have no duration.

Precedents are the immediate preceding activities.

Times moves from left to right

A network may not contain loops

Representing lagged activities We might come across situations where we

wished to undertake two activities in parallel so long as there is a lag between the two. We might wish to document amendments to a program as.

15. b. Ethics relates to the moral obligation to respect the rights and interests of others - goes beyond strictly legal responsibilities.

Three groups of responsibilities:

* Stockholder theory (e.g. Milton Friedman). An employee's duty is to the

owners of the business (which often means the stakeholders) above all

others - although legal requirements must be met.

* competitive relationships between businesses.

Uniform Treatment

one example of organizational ethics is the uniform treatment of all employees. Small business owners should treat all employees with the same

respect, regardless of their race, religion, cultures or lifestyles. Everyone

should also have equal chances for promotions. One way to promote uniform

treatment in organizations is through sensitivity training. Some companies

hold one-day seminars on various discrimination issues. They then invite outside experts in to discuss these topics. Similarly, small company managers must also avoid favoring one employee over others. This practice

may also lead to lawsuits from disgruntled employees. It is also counter

The owner must also maintain certain safety standards for protecting nearby residents from leaks that affect the water or air quality.

There are state and federal laws that protect people from unethical environmental practices. Business owners who violate these laws may face

stiff penalties. They may also be shut down.

Financial Ethics

Business owners must run clean operations with respect to finances, investing and expanding their companies. For example, organizations must not bribe state legislators for tax credits or special privileges. Insider trading is also prohibited. Insider trading is when managers or executives illegally apprise investors or outside parties of privileged information affecting publicly traded stocks, according to the Securities

and Exchange Commission. The information helps some investors achieve

greater returns on their investments at the expense of others. Executives

overcome these types of problems when possible. They often put them through employee advisor programs, which involves getting them the treatment they need. Employees may have issues that lead to these types of

problems. Therefore, they deserve a chance to explain their situations and

get the help they need

involved in a particular course of action. Many professions, or would be professions, have codes of conduct for their members.