

# SE 329 – Software Project Management

## Human Resource Management

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# Course Outcome

Manage human resources

# Plan Human Resource Management

- What is a human resource management plan?
- How to acquire project team?
- How to develop project team?
- How to manage project team?

# Plan Human Resource Management

We have a scope, budget, schedule.

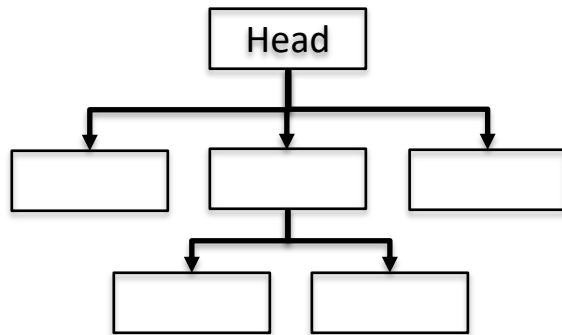
Now => How can we make the project happen?

# Plan Human Resource Management

Determine and identify human resources with the necessary skills for the success of the project.

(PMBOK)

# Roles and Responsibility Definitions

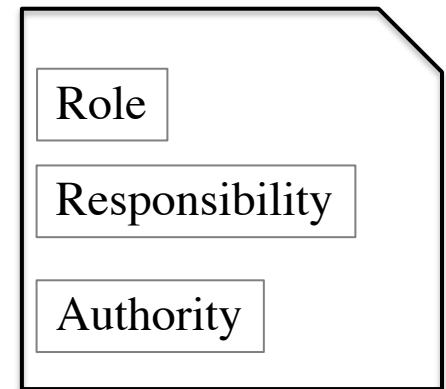


Organization chart

Activity	Ann	Ben
Req.	Resp	Consult
Dev.	Consult	Resp.
Test.	Resp.	Resp.

Matrix chart

Responsibility assignment matrix



Text-oriented format

Role description

# Plan Human Resource Management

How to identify the needed resources?

# Acquire Project Team

	Activity	Predecessors	Duration
1.0	Acquire hardware		5
2.0	Setup the development environment		3
3.0	Setup the libraries on the Arduino	1.0	4
4.0	Prepare the server with required libraries		1
5.0	Develop the acquisition component	3.0	
5.1	Send a request to the CAN and get the response	3.0	10
5.2	Format the response and send it to the server	5.1	2
6.0	Develop the server application	4.0	
6.1	Receive CAN data	4.0	5
6.2	Store data in database	6.1	2
7.0	Test the solution	5.2,6.2	10



# Acquire Project Team

How many developers do we need?

1. Specialized on embedded systems
2. Specialized on testing
3. Specialized on back-end development

# Acquire Project Team

- Project manager may and may not have direct control over team member selection.
- Negotiate to get the required human resources.
- May need alternative solutions for capable resources.

Consider: quality of human resources affects project schedule, quality, risk and customer satisfaction.

# Team Acquisition Techniques

1. Pre-assignment
2. Negotiation
3. Acquisition
4. Virtual team



It doesn't make sense to  
hire smart people and  
then tell them what to do;  
we hire smart people  
so they can tell us what  
to do.

*Steve Jobs / @InspiringThinkn*

*Inspiring Thinkn*

# Discussion: Criteria to Select Team Members

Moishe Lettvin -- What I Learned Doing 250 Interviews at Google

<https://www.youtube.com/watch?v=r8RxkpUvxK0>

(6:00—25:00)

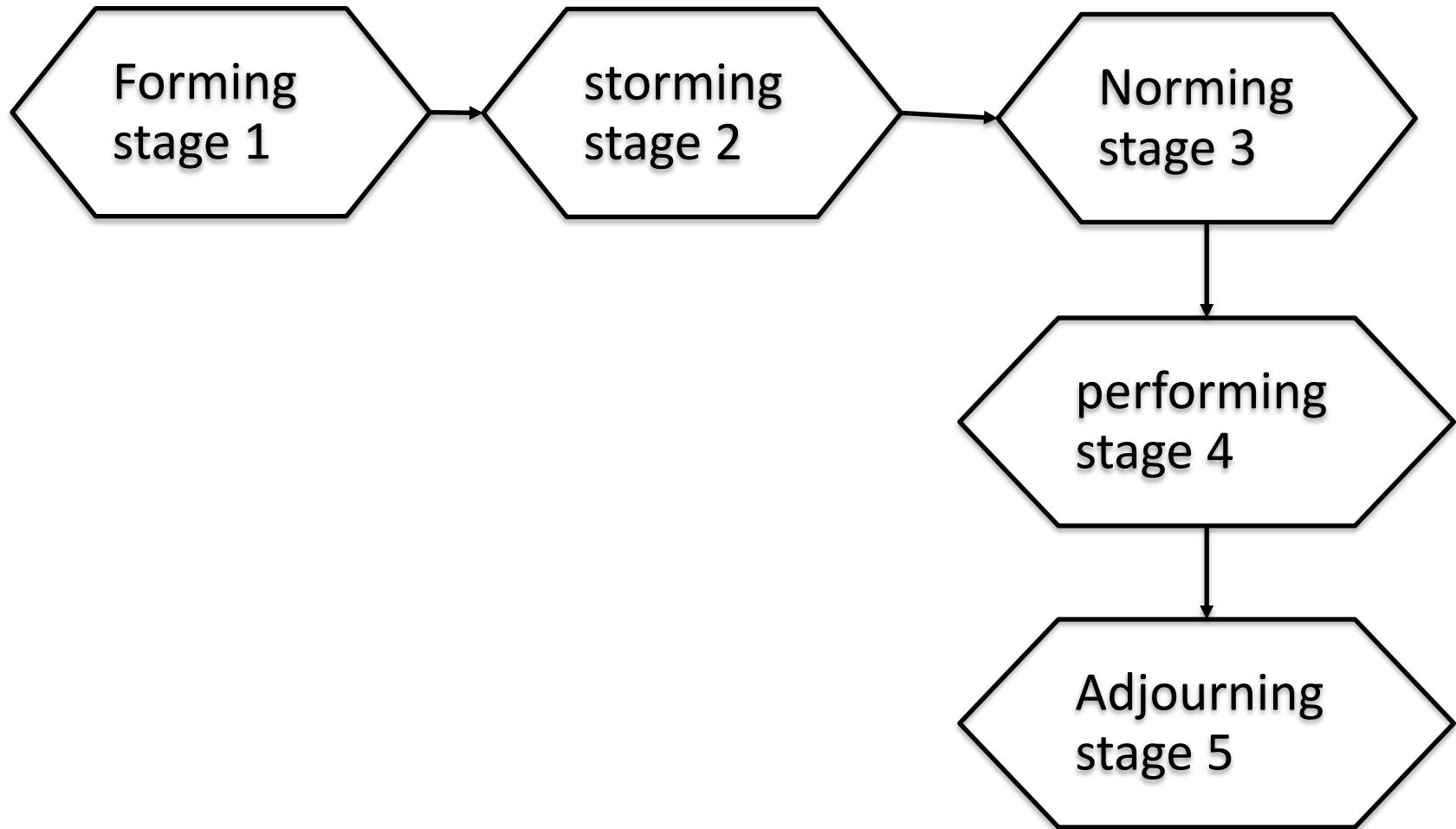
# Develop Project Team

	Activity	Predecessors	Duration	Resources
1.0	Acquire hardware		5	John
2.0	Setup the development environment		3	Tim
3.0	Setup the libraries on the Arduino	1.0	4	Katie
4.0	Prepare the server with required libraries		1	Tim
5.0	Develop the acquisition component	3.0		
5.1	Send a request to the CAN and get the response	3.0	10	Katie
5.2	Format the response and send it to the server	5.1	2	Katie
6.0	Develop the server application	4.0		
6.1	Receive CAN data	4.0	5	Tim
6.2	Store data in database	6.1	2	Tim
7.0	Test the solution	5.2,6.2	10	Noor

# Develop Project Team

Improve team competencies, team member interactions, and overall team environment to enhance project performance.

# Stages of Team Building





# Team Development Techniques

1. Interpersonal skills development
2. Technical training
3. Colocation
4. Recognition and rewards
5. Personnel assessment

# Personnel Assessment

## Types of employees

- Those who want to tell them what to do
- Those who want to lead

## Goal:

- Keep good employee
- Motivate employee
- Encourage innovation and development

# Personnel Assessment

- Big organizations use consultants to evaluate their performance with respect to HR
- Use surveys identify weak points that should be addressed
  - Example – Gallup survey
- The results of a survey is an attempt to measure the performance of an organization

# Gallup Survey Questions (1)

1. Do I know what is expected of me at work?
2. Do I have the material and equipment I need to do my work right?
3. At work, do I have the opportunity to do what I do best every day?
4. In the last seven days, have I received recognition or praise for doing good work?
5. Does my supervisor, or someone at work, seem to care about me as a person?
6. Is there someone at work who encourages my development?

# Gallup Survey Questions(2)

7. At work, do my opinions seem to count?
8. Does the mission/purpose of my company make me feel my job is important?
9. Are my co-workers committed to doing quality work?
10. Do I have a best friend at work?
11. In the last six months, has someone at work talked to me about my progress?
12. This last year, have I had opportunities at work to learn and grow?

# Gallup Survey

You may try it: Participation in Canvas

<https://goo.gl/forms/T0dlApFCKOHZ8y4f1>

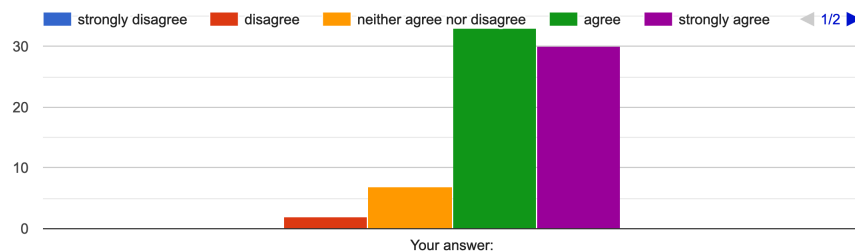
# Gallup Survey

## How would the survey help you as a project manager?

1. Do I know what is expected of me at work?



2. Do I have the material and equipment I need to do my work right?



4. In the last seven days, have I received recognition or praise for doing good work?



10. Do I have a best friend at work?



# Manage Project Team

1. Tracking team members performance,
2. Providing feedback, resolving issues,
3. Managing team changes to optimize project performance.



# Manage Project Team Techniques

1. Observation and conversation
2. Interpersonal skills
3. Performance appraisal
4. Conflict management

# Performance Evaluation

- Companies/organizations use different evaluation criteria
- These criteria define the **culture** of an organization
- Examples:
  - Teamwork
  - Leadership
  - Communication
  - Collaboration
  - Edge
- Goal-oriented performance
  - Measure achievements of previous goals
  - Set reasonable goals and techniques to measure them
  - Identify how leaders could help to achieve them

# Performance Evaluation

- Examples of forms are in canvas

# Performance Evaluation

- Play of a performance evaluation meeting
  - Use P&S TEMPLATE 1

# Conflict Resolution

- Conflicts are part of the business
  - different opinions
  - different goals
  - different ways to do things
  - etc.
- Conflict resolution is about finding a solution to a disagreement
- Conflicts hinder the performance of employees
  - They need to be addressed fast to maintain good progress.

# Conflict Resolution

- Problem → opportunity for improvement
- Conflicts are often due to misunderstanding
- The keys to conflict resolution are:
  1. Listen
  2. Get the facts
  3. Let others come to your choices
  4. Explain the reasons for your decisions
  5. Get employees to cooperate



<http://listen-ink.net/conflict-resolution/>

# Conflict Resolution

Conflict resolution Play - an employee delivers often late.

# Practice - Conflict Resolution

Play conflict resolution: Two team members have often conflict when they push their code.



# Self-check

1. What is a human resource plan for a project?
2. How to develop a human resource plan?
3. Why do employers do performance evaluation?
4. What is conflict resolution?
5. Why is it better to work with the facts when resolving conflicts?

Please post your questions on Piazza.