

# English for the Students of Computer

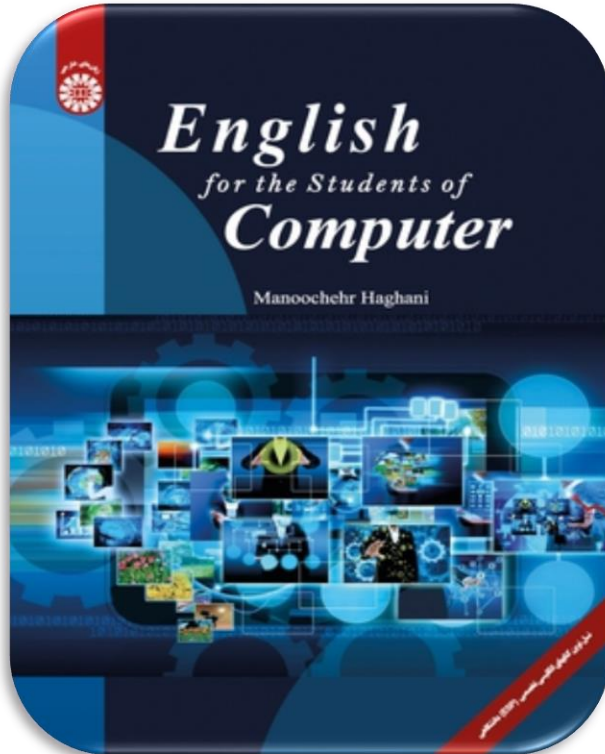
```
Student me = Student();  
  
while (me.alive()) {  
    me.sleep();  
    continue;  
    me.eat();  
    me.practice();  
    me.work();  
    me.makeacontributionsociety();  
    me.beproductive();  
    me.doliterallyanything();  
}
```



TO DAY A  
Reader,  
To MoRRow A  
Leader.



# The Book



English for the Students of Computer

by

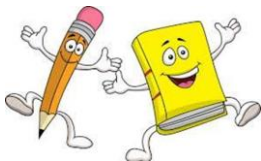
**Manoochehr Haghani**



# Grammar Points

*Fatemeh Zolfaghari*  
*Isfahan University of*  
*Technology*





# Clauses

YOU ARE MAKING  
A DIFFERENCE  
EVERY day

- **Clause:** a group of words that has a subject and a verb.
- Change can be challenging. (**independent**: expresses a complete idea)
- Manufacturing facilities have enough flexibility. (**independent**)
- ... when material handling is assured by automated devices ... (**dependent/subordinate**: does not express a complete idea)
- Although cellular factories can be quite effective ... (**dependent**)



# Relative Clauses

GOOD THINGS COME  
TO THOSE WHO  
~~WAIT.~~  
WORK FOR IT

- **Relative Clause:** a clause that describes a noun or pronoun.
- ✓ A relative clause starts with relative pronouns such as:
  - **who** (people), **when** (time), **whom** (people), **where** (place), **which** (things), **that** (things and people), **why** (reason), ...
  - The presence of interconnected porosity is the reason **why** plastic or resin impregnation is used for Powder Metallurgy parts.

# Relative Clauses

*Teach me  
to feel again,  
in all the ways  
that I've forgotten.*

- A **Net-based** resource management system carries out the service provider role. (**adj**)
- A resource management system **which is Net-based** carries out the service provider role. (**relative clause**)

1. Defining relative clause: gives us essential information to identify who or what we are speaking about; we cannot omit it.

- The book **that we read for this course** is very informative.
- Let's go to the park **when it's sunny**.



# Relative Clauses

- **Note:** in defining clauses, we **can omit** 'who', 'which', and 'that', if they are followed by a **subject**.
- Complex systems need testing to ensure **that they work** as they are intended.
- Complex systems need testing to ensure **they work** as they are intended.



THE PAIN YOU FEEL  
TODAY WILL BE THE  
STRENGTH YOU FEEL  
TOMORROW.



# Relative Clauses

- We **don't** usually **omit** 'who', 'which', and 'that' when they are followed by a **verb**:
- You may be able to construct a properly parameterized subroutine **that saves** space.



**Never give up on anything  
that makes your heart soar.**





# Relative Clauses

2. Non-defining relative clause: adds more information about who/ what we are speaking about; it is between commas; we can omit it.

- A Computer-Based Information System, **which is defined as an information system in which the computer plays a major role,** consists of hardware, software, data, procedures, and people.

- The diagram shows the sentence "My mother, who has brown hair, is standing there." with brackets underneath. The first bracket, labeled "main clause", spans "My mother,". The second bracket, labeled "relative clause", spans "who has brown hair,". The third bracket, labeled "main clause", spans "is standing there,". The word "who" is circled in red.



# Reduced Relative Clauses

There are two ways in which a relative clause is reduced:

1. If the relative clause contains “to be verb”, omit the subject pronoun (which; that; who) and the “to be verb”:

- The cloud platforms have profoundly changed the requirements which are imposed on data integration technology.
- The cloud platforms have profoundly changed the requirements imposed on data integration technology.



# Reduced Relative Clauses

- Ethical hacking is the practice of finding security hazards and reporting them to **the people who are responsible**.
- Ethical hacking is the practice of finding security hazards and reporting them to **the people responsible**.



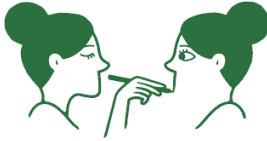
- A module is a part of a program **that is written and tested**.
- A module is a part of **a written and tested** program.



## Reduced Relative Clauses

2. If there is no "to be verb" in the relative clause, it is possible to omit the subject pronoun (that, which, who) and add -ing to the end of the verb:

- .pro is a suffix which indicates that a web or e-mail address belongs to a licensed professional, such as a lawyer.
- .pro is a suffix indicating that a web or e-mail address belongs to a licensed professional, such as a lawyer.



# Noun Modifiers

- In **noun + noun structures**, the **first** noun is normally **singular** in form and describes the second noun. This noun is called a noun **modifier**.
- A **software** company (= a company that produces software)
- An **identification** code (= a code that identifies sb/sth)



The most powerful leadership tool you have is your personal example.

John Wooden



# Parts of Speech

## 1. Nouns

- As **subject** of the sentence
- As **object** of the sentence
- After **articles** (e.g., the/a/an) and **prepositions**
- As **modifiers** before nouns (e.g., clothing manufacturers, car factory)
- Many **people** use their **signature file** (“sig file”) as a **means** of artistic **expression**.



# Parts of Speech

## 2. Adjectives

-To describe **nouns**

-To describe **linking verbs**

1. To be verbs (am, is, are, were, was, ...)

The program **is** complex.

2. Verbs of senses (smell, taste, sound, look, ...)

Normally, a photographic negative **looks** right (not flipped).



# Parts of Speech

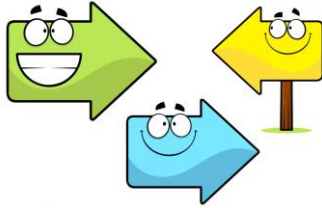
## 3. Become, grow, get, turn, ...

- Sufficiently advanced technology will **become** indistinguishable from magic.

## 3. Adverbs

- To describe **adjectives** (e.g., very **user-friendly**)
- To describe **verbs** (e.g., **grows** rapidly)
- To describe **adverbs** (e.g., more or less **independently**)





## Parts of Speech

- **Note:** Adverbs can go in the **front**, **mid** (between the subject and the main verb, or after the modal verb or first auxiliary verb), and **end** position of a sentence.
- **Today**, Epson makes high-quality color inkjet printers (adverb at the **beginning** of the sentence)
- Emoticons are **often** used in electronic mails. (adverb in the **middle** of the sentence)
- EPROMS can be programmed **electrically**. (adverb at the **end** of the sentence)



# Parts of Speech

## 4. Verbs

- To describe **states** (e.g., smell, taste, am, is, are, ...)

Intel is teaching a computer chip to **smell**.

- To describe **actions** (e.g., talk, walk, listen, ...)

The key idea is never to **write** a long computer program without ascertaining whether it will **work**.



## Passive Voice (Functions)

1. When the performer of an action is unimportant, or unknown:

Most applications **have been modified** to utilize clouds.

2. To be impersonal in scientific and technical texts:

Various development programs **were established** under the umbrella  
of IUT.

3. To move the most important information to the beginning of the sentence:

The f-ratio determines the brightness of the image **formed by** the lens.



# Passive Voice (Structure)

Present simple tense: to talk about habits, routines, general truths and scientific facts

- **Active:** (simple verb/ verb+ 's' or 'es' for 3rd person singular):
  - They **design** the program to handle massively parallel operations.
- **Passive** (am/is/are + p.p.):
  - The program **is designed** to handle massively parallel operations.



# Passive Voice

Present continuous tense: to talk about an ongoing action and future plans

- Active (am/is/are + verb+ ing):
  - They are designing the program to handle massively parallel operations.
- Passive (am/is/are + being + p.p.):
  - The program is being designed to handle massively parallel operations.



# Passive Voice

- Past simple tense: to talk about finished events in the past
  - Active: (verb+ 'd' or 'ed'/ irregular verb):
    - They **designed** the program to handle massively parallel operations.
  - Passive (were/was + p.p.):
    - The program **was designed** to handle massively parallel operations.



# Passive Voice

Past continuous tense: to talk about an ongoing action in the past

- Active: (were/ was+ verb+ ing):
  - They were designing the program to handle massively parallel operations.
- Passive (were/was+ being + p.p.):
  - The program was being designed to handle massively parallel operations.



# Passive Voice

Present perfect simple tense: to talk about an action started in the past and continued to the present

- Active: (have/has+ p.p.):
  - They **have designed** the program to handle massively parallel operations.
- Passive (have/has+ been + p.p.):
  - The program **has been designed** to handle massively parallel operations.





# Passive Voice

Past perfect simple tense: to describe an action that happened before another in the past

- Active: (had+ p.p.):
  - They had designed the program to handle massively parallel operations.
- Passive (had+ been + p.p.):
  - The program had been designed to handle massively parallel operations.



# Passive Voice

Future simple tense: to talk about sth that has not happened yet

- Active: (will + simple verb):
  - They will design the program to handle massively parallel operations.
- Passive (will + be + p.p.):
  - The program will be designed to handle massively parallel operations.



# Passive Voice

## Passive Modal:

- Active: (modal + simple verb)
- They may/must/can design the program to handle massively parallel operations.
- Passive (modal (may, can, should, must, ...)+ be + p.p.):
- The program may/ must/ can be designed to handle massively parallel operations.



# Passive Voice

The Passive Form of Infinitives (Present Tense): **to be + p.p.**

I don't expect **to be invited** to the party.

He is hoping **to be elected** president.

The Passive Form of Infinitives (Past Tense): **to have been + p.p.**

- She was happy **to have been invited** to the party.
- They were hoping **to have been paid** early.



## Parallel Structures

- When words or phrases that have the **same** grammatical function are connected by the **coordinating conjunctions** 'and', 'or', 'but', and 'nor'.
- She loves **apples** **and** **bananas**.
- She types **slowly** **but** **accurately**.
- Our main need is not **food**, **nor** **money**. It is education.
- I don't enjoy **running** **or** **playing**.



# Parallel Structures

- Correlative conjunctions: They join two or more elements together. The most common correlative conjunctions:

## 1. Either ... or

- Let's either go swimming or go shopping.
- I want to paint my room either pink or green.

## 2. Both ... and

- I both cleaned my room and did the dishes.



## Parallel Structures

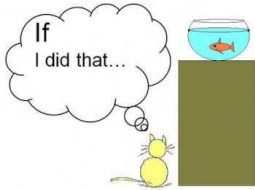
- I'd like to have **both** pizza **and** coffee.

### 3. Neither ... nor

- I have **neither** the time **nor** the patience for cooking.
- She is **neither** listening **nor** taking notes.

### 4. Not only ... but also

- She is **not only** bright **but also** hard-working.
- She **not only** apologized **but also** sent me a present.



# Conditionals



**Zero:** real and possible events; a general situation

If we **heat** water to 100 degrees centigrade, it **boils**.

**First:** real and possible events; a particular situation

If I **have** free time, I **will go** to the party.

**Second:** imaginary; present tense

If I **had** enough money, I **would buy** that book.

**Third:** imaginary; past tense

If they **had invited** me, I **would have gone** there.





I saw a man-eating alligator.

# Present and Past Participle Adjectives



I saw a man eating alligator.

- The **present participle** can act as an adjective with an **active meaning**. The noun it modifies performs an action:
  - It is a **confusing** problem. (the problem does sth: it confuses)
- The **past participle** can serve as an adjective with a **passive meaning**:
  - They are **confused** students. (the students are confused by sth)



## Gerunds as Objects of Preposition



- A gerund is frequently used as the object of a preposition.
- She is interested **in learning** English.
- The teacher is responsible **for teaching** the students.





# Count and Non-Count Nouns

- A **count** noun may be preceded by '**an**', '**a**', or '**one**' in the **singular** and it takes '**-s**' or '**-es**' in the **plural**.
- A **non-count** noun is **not** immediately preceded by '**a/an/one**' and it has **no plural** form.
- Some common categories of non-count nouns:
  1. Whole groups made up of similar items (equipment, hardware, software, traffic, ...)
  2. Fluids (water, oil, milk, ...)



# Count and Non-Count Nouns

3. Solids (iron, gold, silver, ...)

4. Gases (air, oxygen, nitrogen, ...)

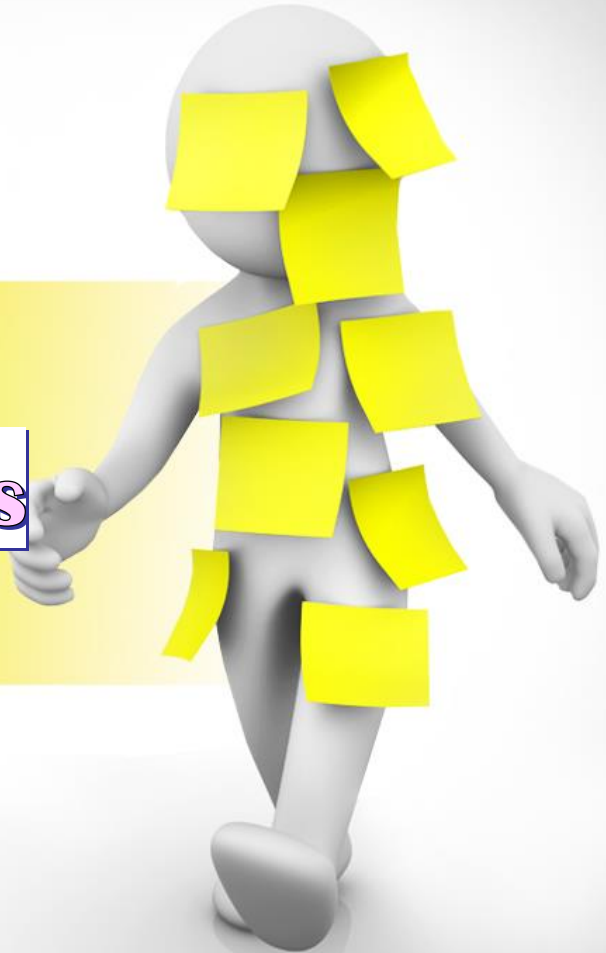
5. Particles (sugar, sand, rice, ...)

6. Fields of study (Chemistry, engineering, History, ...)

7. Natural events (weather, rain, snow, ...)

no rain  
no flowers

# Reading Strategies





# Skimming

- Skimming: reading a text quickly in order to get the general/main idea
1. Do **not** read **everything**; move your eyes **quickly** over the text
  2. Read the **title**
  3. Read the **headings** and **subheadings**
  4. Read the **first** and **last** sentences of each paragraph
  5. Look at the **boldfaced**, **underlined** and **italic** words



# Skimming

6. Look at the **keywords** (the repeated words)
7. Look at the **tables**, **figures**, and **diagrams**

The word capitalism is now quite commonly used to describe the social system in which we now live. It is also often assumed that it has existed, if not forever, then for most of human history. In fact, capitalism is a relatively new social system. For a brief historical account of how capitalism came into existence a couple of hundred years ago, see Marx and Engels' Communist Manifesto. But what exactly does 'capitalism' mean?

#### Class division

Capitalism is the social system which now exists in all countries of the world. Under this system, the means for producing and distributing goods (the land, factories, technology, transport system etc) are owned by a small minority of people. We refer to this group of people as the capitalist class. The majority of people must sell their ability to work in return for a wage or salary (who we refer to as the working class.)

The working class are paid to produce goods and services which are then sold for a profit. The profit is gained by the capitalist class because they can make more money selling what we have produced than we cost to buy on the labour market. In this sense, the working class are exploited by the capitalist class. The capitalists live off the profits they obtain from exploiting the working class whilst reinvesting some of their profits for the further accumulation of wealth.

#### The profit motive

In capitalism, the motive for producing goods and services is to sell them for a profit, not to satisfy people's needs. The products of capitalist production have to find a buyer, of course, but this is only incidental to the main aim of making a profit, of ending up with more money than was originally invested. This is not a theory that we have thought up but a fact you can easily confirm for yourself by reading the financial press.

The capitalists calculate can be sold at a profit. Those goods may satisfy human needs but those needs will not be met if people do not have sufficient money.

Attentively  
read the first  
and the last  
paragraphs

Read only the  
first sentence.  
"Drop down"  
to the end,  
looking for  
key details



# Finding the Main Idea & Topic

- Main idea: a complete sentence that summarizes the whole paragraph or text; it includes the topic and what the author wants to say about it.
- Topic: the general subject of a paragraph or text which is described with just a word or a phrase
- Keywords: Mainly- primarily- the main focus- general idea revolves around- concludes- discusses- primary- the best topic the best title...





# Finding the Main Idea & Topic

- ✓ Read the **beginning** and **concluding** sentences
- ✓ Ask **questions** (who; what; when; where; ...)
- ✓ Read the **titles** and **subtitles**
- ✓ Look at the **tables** and **diagrams**
- ✓ Look at the **underlined**, **boldfaced** and **italic** words
- ✓ **Highlight** or **underline** important information
- ✓ Write a **summary** or **rewrite** the text in your own words



# Scanning

Scanning: reading a text quickly to find specific information  
(keywords; specific words; names; or details)

1. If the text is completely unknown to you, skim the whole text first to get the general idea
2. Read each question carefully
3. Find the keywords in the question (why, what, ...)
4. Read the text quickly to find the answers to the questions



# Scanning

## What is Capitalism?

The word capitalism is now quite commonly used to describe the social system in which we now live. It is also often assumed that it has existed, if not forever, then for most of human history. In fact, capitalism is a relatively new social system. For a brief historical account of how capitalism came into existence a couple of hundred years ago, see Marx and Engels' Communist Manifesto. But what exactly does 'capitalism' mean?

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### The profit motive

In capitalism, the motive for producing goods and services is to sell them for a profit not to satisfy people's needs. The products of capitalist production have to find a buyer, of course, but this is only incidental to the main aim of making a profit, of ending up with more money than was originally invested. This is not a theory that we have thought up but a fact you can easily confirm for yourself by reading the financial press. Production is started not by what consumers are prepared to pay for to satisfy their needs but by what the capitalists calculate can be sold at a profit. Those goods may satisfy human needs but those needs will not be met if people do not have sufficient money.

You look  
for specific  
keywords



# Making Inferences

Making inferences: to draw a logical conclusion based on what is not explicitly stated

- ❑ I failed the course. (my grade was below 10)
- ❑ I ate another sandwich. (I have eaten at least one sandwich before).

## ❑ Sample Inferencing Questions

➤ Key words: suggest, indicate, conclude, infer, imply, ...



## Making Inferences

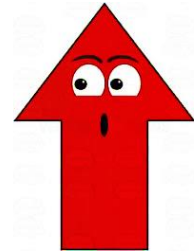
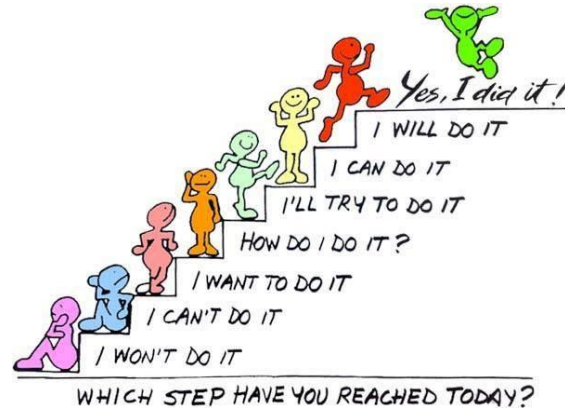
- ✓ The passage **suggests** which of the following about X?
- ✓ We can **conclude** from paragraph x that ...
- ✓ Paragraph x **suggests** that ...
- ✓ We can **infer** from paragraph x that ...
- ✓ This sentence **implies** that ...





# Finding Pronoun References

1. **Number** (singular/plural)
2. **Gender** (male/female/neutral)
3. **Meaning**
4. **Distance** (usually the nearest word)





# Guessing from the Context

**Context** (surrounding words and ideas) helps us to guess the meaning of unknown words

➤ **Contrast:**

✓ **Rude** behavior is not accepted. You should be polite instead.

➤ **Examples:**

✓ For example, someone who is not **rude** says 'please' before asking anybody to do something for them.



# Guessing from the Context

## ➤ Synonyms:

✓ While giving a speech, **poise** and confidence matter the most.

## ➤ Explanations:

✓ We can **verify** something by using different evidence and facts that prove it.







# Linking/Connecting Words

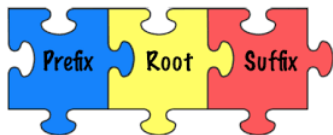
- ❑ Special words and phrases to link different ideas, clauses or sentences
- ✓ **Emphasis:** indeed; particularly; clearly; especially; absolutely; generally, ...
- ✓ **Addition:** also; too; in addition; moreover; not only ... but also; furthermore; additionally; and, ...





# Linking/Connecting Words

- ✓ **Contrast:** unlike; on the other hand; whereas; however; yet; but, although, ...
- ✓ **Result/ Conclusion:** therefore; in conclusion; to summarize; as a result; thus; hence, thereby, ...
- ✓ **Giving Examples:** for example; for instance; such as; like, ...
- ✓ **Explanation/ Reason:** because; since; due to; because of; the reason why, ...



## Affixes (Prefixes)

➤ To add the meaning 'not' to the word:

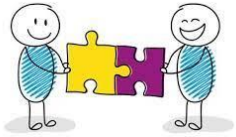
❑ **Un:** unreal; unusual; unrelated; unpopular; unlikely; unsuitable; unexpected

❑ **In:** ineffective; incomplete; inexpensive; incapable

❑ **Dis:** dissimilar; dislike; disorganized; dishonest; disease

❑ **Im:** improbable; impolite; imperfect; impossible

❑ **Ir:** irregular; irrational; irresponsible



# Affixes (Prefixes & Suffixes)

❑ **De:** deform; deactivate; degenerate

➤ To add the meaning 'again':

❑ **Re:** reconnect; restart; reform; regenerate

## Suffixes:

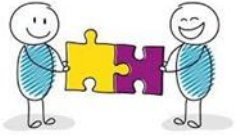
➤ **Noun making** suffixes:

❑ **-ion:** information; production; suggestion; connection



# Affixes (Prefixes & Suffixes)

- ❑ **-ness**: happiness; sleepiness; drowsiness
- ❑ **-ence/-ance**: performance; difference
- ❑ **-ment**: development; management, equipment, government
- ❑ **-er**: programmer; computer; manager
- **Adjective making** suffixes:
  - ❑ **-ous**: continuous; dangerous; famous
  - ❑ **-tive**: informative; productive; suggestive



# Affixes (Prefixes & Suffixes)

- ❑ -ive: responsive; progressive
- ❑ -al: experimental; developmental; mechanical
- ❑ -able/-ible: suitable; comfortable; portable
- Verb making suffixes
  - ❑ -ize: summarize; finalize; systematize; characterize
  - ❑ -fy: classify; simplify; intensify

# Thanks

## Any Questions?



You can find me at

- @fzol2021
- [fzolfaghari@iut.ac.ir](mailto:fzolfaghari@iut.ac.ir)
- [fzolfaghari68205@gmail.com](mailto:fzolfaghari68205@gmail.com)
- 031-33912853