



► **LEARNING OUTCOMES**

- At the end of this topic, students should be able to:
- Discuss how society uses computers in education, finance, government, health care, science, publishing, travel, and manufacturing

Computer Applications in Society

- ▶ Society apply computers in many fields such as;
- ▶ education
- ▶ finance
- ▶ government
- ▶ health care
- ▶ science
- ▶ publishing
- ▶ travel
- ▶ and manufacturing

Education

- ▶ Today, educators also are turning to computers to assist with education.
- ▶ Many schools and companies equip labs and classrooms with computers.
- ▶ Some schools require students to have a mobile computer or mobile device to access the school's network or Internet wirelessly.
- ▶ Students use software to assist with learning or to complete assignments.
- ▶ To promote education by computer, many vendors offer substantial student discounts on software.



Figure 1-31 In some schools, students have mobile computers on their desks during classroom lectures.

Finance

- ▶ Many people and companies use computers to help manage their finances.
- ▶ Some use finance software to balance checkbooks, pay bills, track personal income and expenses, manage investments, and evaluate financial plans.
- ▶ Investors often use online investing to buy and sell stocks and bonds — without using a broker.
- ▶ With online investing, the transaction fee for each trade usually is much less than when trading through a broker.



Figure 1-32 An online banking Web site.

Government

- ▶ A government provides society with direction by making and administering policies.
- ▶ To provide citizens with up-to-date information, most government offices have Web sites.
- ▶ People access government Web sites to file taxes, apply for permits and licenses, pay parking tickets, buy stamps, report crimes, apply for financial aid, and renew vehicle registrations and driver's licenses.



Figure 1-33 Law enforcement officials have in-vehicle computers and mobile devices to access emergency, missing person, and criminal records in computer networks in local, state, and federal agencies.

Health Care

- ▶ Doctors use the Web and medical software to assist with researching and diagnosing health conditions.
- ▶ Pharmacists use computers to file insurance claims.
- ▶ Computers and computerized devices assist doctors, nurses, and technicians with medical tests.
- ▶ Computers monitor patients' vital signs in hospital rooms and at home.
- ▶ Surgeons use computer-controlled devices to provide them with greater precision during operations, such as for laser eye surgery and robot-assisted heart surgery.



Figure 1-34 Doctors, nurses, technicians, and other medical staff use computers and computerized devices to assist with medical tests.

Science

- ▶ All branches of science, from biology to astronomy to meteorology, use computers to assist them with collecting, analyzing, and modeling data.
- ▶ Scientists also use the Internet to communicate with colleagues around the world.

Publishing

- ▶ Many publishers make their works available online.
- ▶ Some Web sites allow you to copy the work, such as a book or music, to your desktop computer, mobile computer, smart phone, or other mobile device.



Figure 1-36 Many magazine and newspaper publishers make the content of their publications available online.

Travel

- ▶ In preparing for a trip, you may need to reserve a car, hotel, or flight.
- ▶ Many Web sites offer these services to the public.
- ▶ you can order airline tickets on the Web.
- ▶ If you plan to drive somewhere and are unsure of the road to take to your destination, you can print directions and a map from the Web.

Manufacturing

- ▶ Computer-aided manufacturing(CAM) refers to the use of computers to assist with manufacturing processes such as fabrication and assembly.
- ▶ Often, robots carry out processes in a CAM environment.
- ▶ CAM is used by a variety of industries, including oil drilling, power generation, food production, and automobile manufacturing.
- ▶ Automobile plants, for example, have an entire line of industrial robots that assemble a car



Figure 1-38 Automotive factories use industrial robots to weld car bodies.

References

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