



Computer Applications in Medicine



Objectives:

- Describe the Medicine s databases' (Pub-Med).
- Describe Medical Web Sites.
- Describe Patient Management System.
- Describe introduction to SPSS Statistics.
- Explain how the computer technologies can be used to serve medicine fields.
- Identify the term "medical skills".



Introduction

You should be able to explain the main databases used in medicine. You should

be able to describe the medical web sites and how to Patient Information

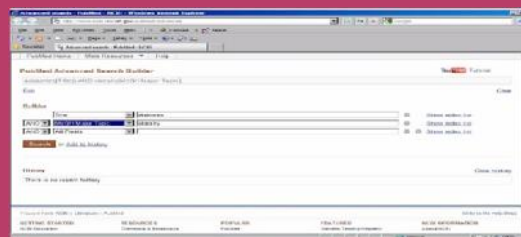
System can help in medicine fields. You should also understand how statistics

and computer technologies used to help physician.



Medicine's databases' (Pub-Med):

PubMed: is a database containing MEDLINE, Pre-MEDLINE (citations provided to the database from publishers before the citations are edited and subject headings are added) and other literature citations created and produced by the National Library of Medicine.





Medical Web Sites:

Students should be able to visit more and more web site to develop his skills in searching about medical site to update information of physician and know more about the context of these web sites:

- National Institutes of Health
<http://www.nih.gov>
- National Library of Medicine (Medline)-
<http://igm.nlm.nih.gov/>
- American Medical Informatics Association-
<http://www.amia.org/>
- The international Society for computer aided surgery.
<http://igs.slu.edu/>
- The health level 7 committee:
<http://www.hl7.org>
- The European Committee for Standardization
Technical Committee for Health Informatics
<http://www.centc251.org/>
- Bioinformatics resources on the WEB
<http://www.niehs.nih.gov/science/bioinfo.htm>
- Tools for DNA gene and protein sequencing.
<http://www.ncbi.nlm.nih.gov/Tools/index.html>



Some Medical Journals:

- CRITICAL REVIEWS IN MEDICAL INFORMATICS.
- HEALTH COMMUNICATIONS AND INFORMATICS
- HEALTHCARE INFORMATICS
- INTERNATIONAL JOURNAL OF MEDICAL INFORMATICS
- JOURNAL OF THE AMERICAN MEDICAL INFORMATICS

Association:

- MEDICAL INFORMATICS
- MEDICAL INFORMATICS AND THE INTERNET IN

Medicine:

- STUDIES IN HEALTH TECHNOLOGY AND INFORMATICS
- BIOINFORMATICS
- COMPUTERS AND BIOMEDICAL RESEARCH
- COMPUTERS IN BIOLOGY AND MEDICINE
- COMPUTERS IN HEALTHCARE
- COMPUTERS IN HOSPITALS
- COMPUTERS IN NURSING



A Patient Management System:

Patient Management system automates the management of patients and doctors

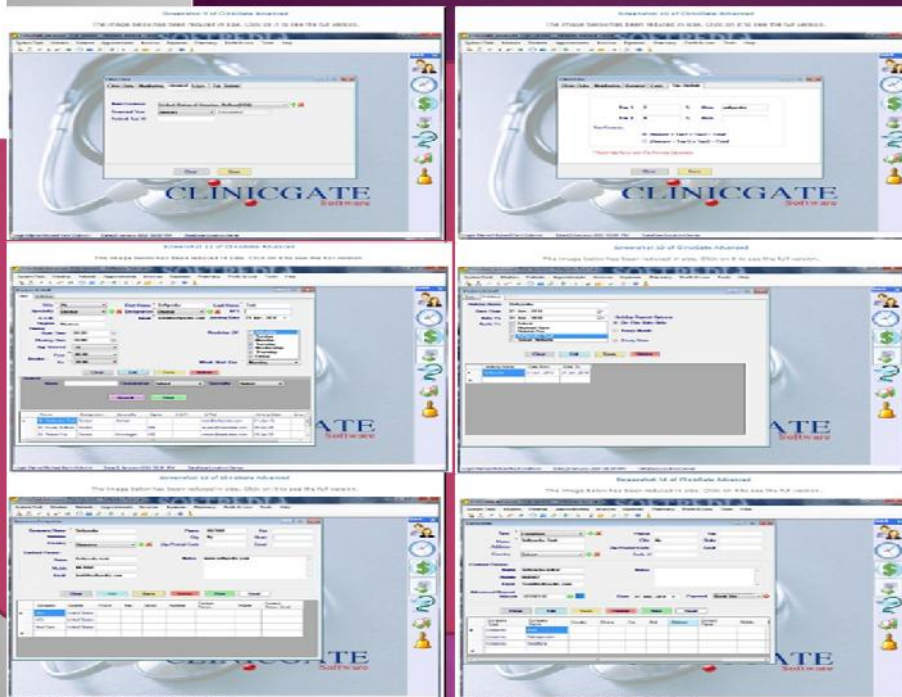
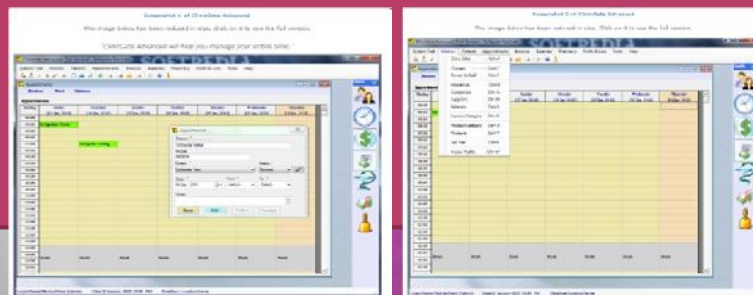
activities, which involves patient, bed details, doctor's details.

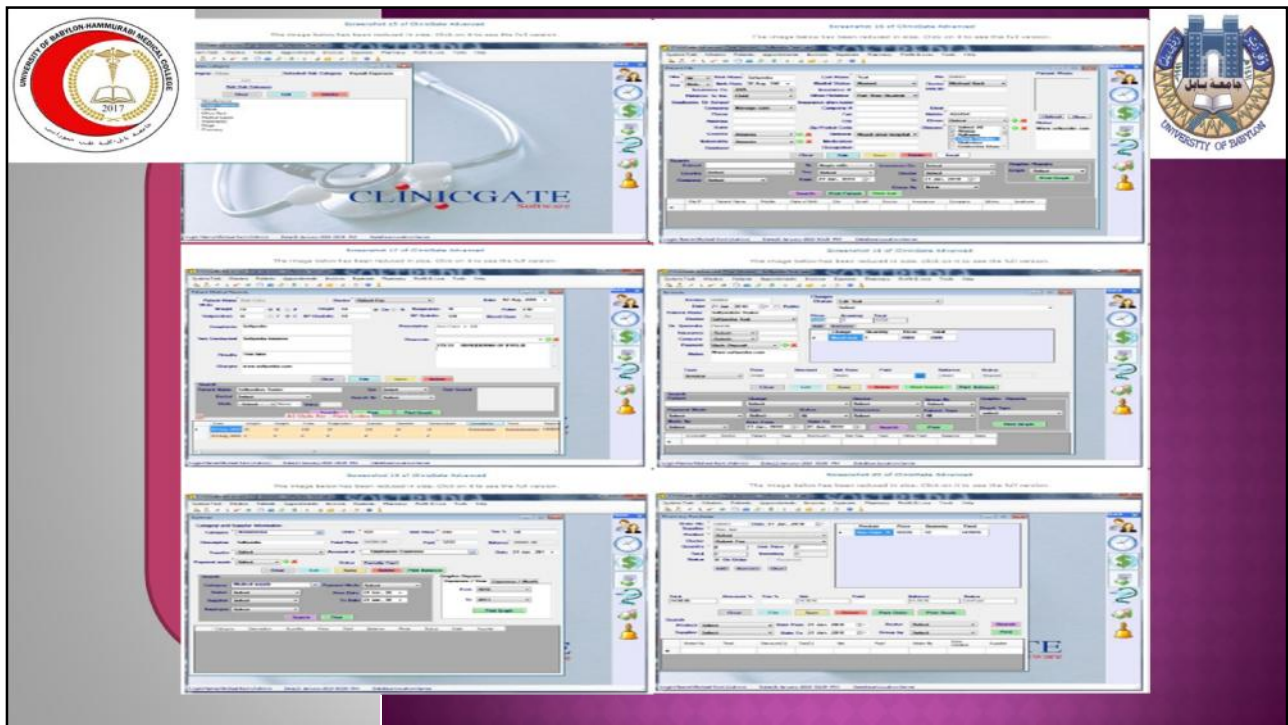
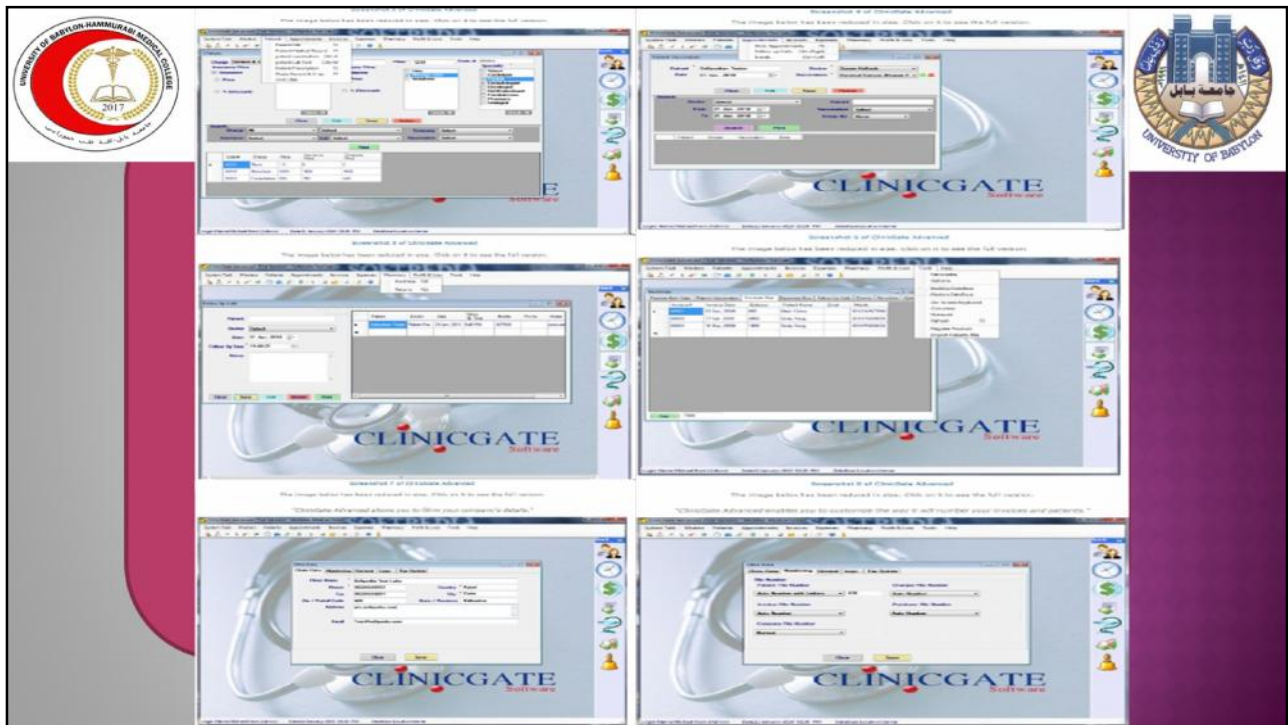
This is a patient information system that used to add, edit, search, delete a

...etc. Patient record and store it using a sequential file and data reporting for a

Managed care organization.

Screenshot bellows shows main activities to use the clinic gate advanced:





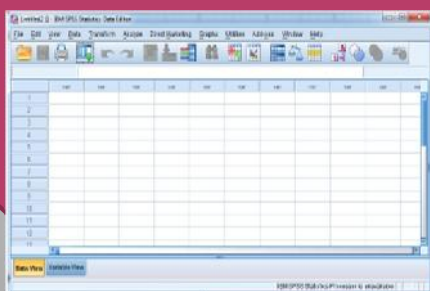


SPSS Statistics:

Statistical Package for the Social Sciences is the most widely used

Statistical software for data analysis in sport and exercise science departments

around the world. This book is the first guide to SPSS that employs examples directly from the field of sport and exercise.



Computer Technologies in medicine fields:

- Medical Decision making: Probabilistic medical reasoning.
- Patient care systems.
- Patient monitoring systems.
- Computer aided surgery.
- Computer based patient record systems.
- Clinical decision support systems.
- The internet.
- Standards in medical informatics.
- Imaging modalities.
- Image management systems.
- Telemedicine.
- Bioinformatics.