

Program Assignment 3 with Visitor and Observer Patterns

OODP 2020

Two Weeks Given

Due Date: June 16th, Tuesday, 10 pm

Deliverables

- Source codes - **.java files** only

Do **not include Eclipse directory**.

Remove "**package PackageName;**" statement in the first line of the source when you submit.

- User's manual including **running shots** of your program;
- **Design** Document with **UML** or your own notations;
- Submit all your deliverables with **one zip file**;
- Include **your name** into the zip file.

Simulate a hospital process to check, examine, and recommend a treatment for three organs – lung, heart, and stomach. Use three visitor objects for checking, examining, and recommending a treatment. For each action of visitor objects, the result is reported to the specialist with observer objects.

Checking (진단) on Lung

Chance of lung cancer (폐암 가능성) on Lung

Lung specialist received : Chance of lung cancer (폐암 가능성)

Checking (진단) on Heart

Chance of Heart failure (심부전 가능성) found on Heart

Heart specialist received : Chance of Heart failure found (심부전 가능성)

Checking (진단) on Stomach

Chance of Stomach Acid (위산과다 가능성) found on Stomach

Stomach specialist received : Chance of Stomach Acid (위산과다 가능성)

Examining (검사) on Lung

Cause of asthma found (천식원인 발견됨) on Lung

Lung specialist received : Asthma found (천식원인 발견됨)

Examining (검사) on Heart

Cardiac dysrhythmia (부정맥 발견) diagnosed on Heart

Heart specialist received : Cardiac dysrhythmia diagnosed (부정맥 발견)

Examining (검사) on Stomach

Gastritis found (위염 발견) on Stomach

Stomach specialist received : Gastritis found (위염 발견)

Treatment Recommendation (치료 추천) for Lung

Medicine (투약) recommended for Lung

Lung specialist received : Medicine (투약) recommendation

Treatment Recommendation (치료 추천) for Heart

Proper food and exercise (식생활과 운동 요법) recommended for Heart

Heart specialist received : Proper food and exercise (식생활과 운동 요법)

Treatment Recommendation (치료 추천) for Stomach

Proper food and exercise (식생활과 운동 요법) recommended for Stomach

Stomach specialist received : Proper food and exercise (식생활과 운동 요법)

Checking (진단) on Lung

Chance of lung cancer (폐암 가능성) on Lung

Lung specialist received : Chance of lung cancer (폐암 가능성)

Checking (진단) on Heart

Chance of High Cholesterol (고 콜레스테롤 가능성) on Heart

Heart specialist received : Chance of High Cholesterol in vein (고 콜레스테롤 가능성)

Checking (진단) on Stomach

Chance of Ulcer (위궤양 가능성) on Stomach

Stomach specialist received : Chance of Ulcer (위궤양 가능성)

Examining (검사) on Lung

Cancer cell (암세포 발견됨) found on Lung

Lung specialist received : Lung cancer cell found (암세포 발견됨)

Examining (검사) on Heart

Scanning Result: Heart failure symptom (심부전 발견) found on Heart

Heart specialist received : Heart failure symptom found (심부전 발견)

Examining (검사) on Stomach

Ulcer found (위궤양 발견) on Stomach

Stomach specialist received : Ulcer found (위궤양 발견)

Treatment Recommendation (치료 추천) for Lung
Medicine (투약) recommended for Lung
Lung specialist received : Medicine (투약) recommendation
Treatment Recommendation (치료 추천) for Heart
Medicine (투약) recommended for Heart
Heart specialist received : Medicine (투약) recommendation
Treatment Recommendation (치료 추천) for Stomach
Medicine (투약) recommended for Stomach
Stomach specialist received : Medicine (투약) recommendation

Checking (진단) on Lung

Chance of asthma (천식 가능성) on Lung

Lung specialist received : Chance of asthma (천식 가능성)

Checking (진단) on Heart

Chance of Heart failure (심부전 가능성) found on Heart

Heart specialist received : Chance of Heart failure found (심부전 가능성)

Checking (진단) on Stomach

Chance of Ulcer (위궤양 가능성) on Stomach

Stomach specialist received : Chance of Ulcer (위궤양 가능성)

Examining (검사) on Lung

Cause of asthma found (천식원인 발견됨) on Lung

Lung specialist received : Asthma found (천식원인 발견됨)

Examining (검사) on Heart

Cardiac dysrhythmia (부정맥 발견) diagnosed on Heart

Heart specialist received : Cardiac dysrhythmia diagnosed (부정맥 발견)

Examining (검사) on Stomach

Ulcer found (위궤양 발견) on Stomach

Stomach specialist received : Ulcer found (위궤양 발견)

Treatment Recommendation (치료 추천) for Lung

Operation (수술) Recommended for Lung

Lung specialist received : Operation (수술) recommendation

Treatment Recommendation (치료 추천) for Heart

Medicine (투약) recommended for Heart

Heart specialist received : Medicine (투약) recommendation

Treatment Recommendation (치료 추천) for Stomach

Medicine (투약) recommended for Stomach

Stomach specialist received : Medicine (투약) recommendation