

# البرامج

- الهدف من إنشاء البرامج ؟

– حل مشاكل واقعية

- و ذلك عن طريق محاكاة الواقع

- نحن نعلم بأن البرامج تنقسم داخلياً إلى

– بيانات

– عمليات ( على البيانات )

- الهدف الرئيسي في البرمجة الشيئية - أو ما يعرف ببرمجة الكائنات

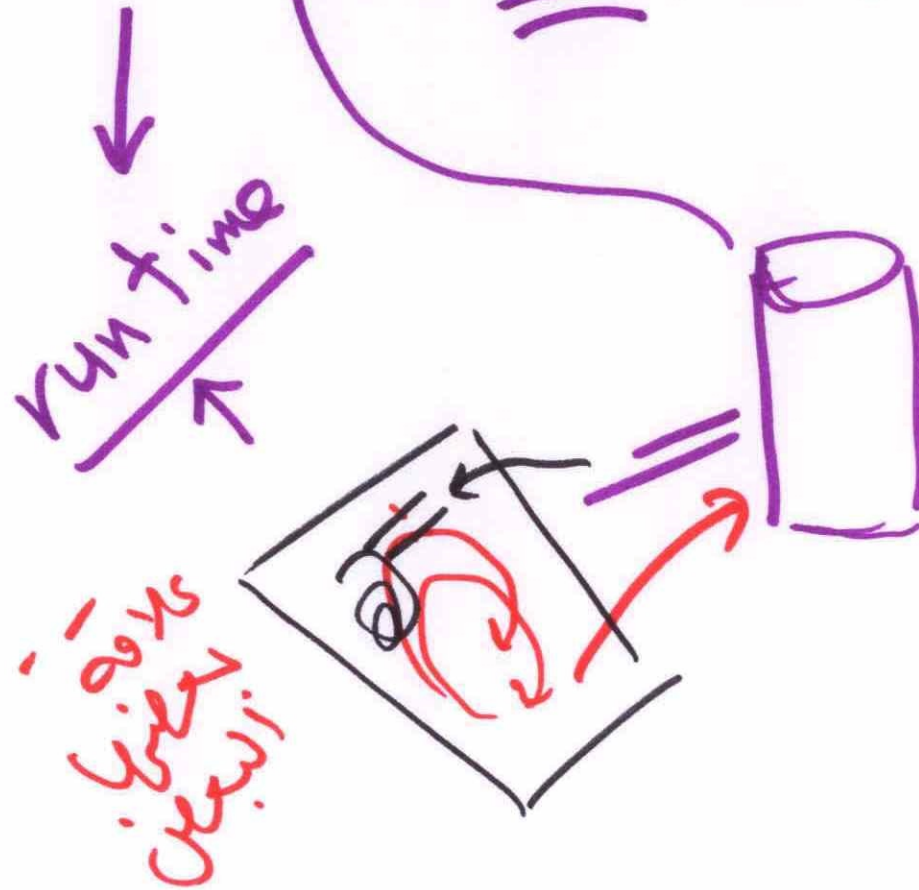
– حل المشاكل البرمجية بشكل مختلف عن الطرق التقليدية:

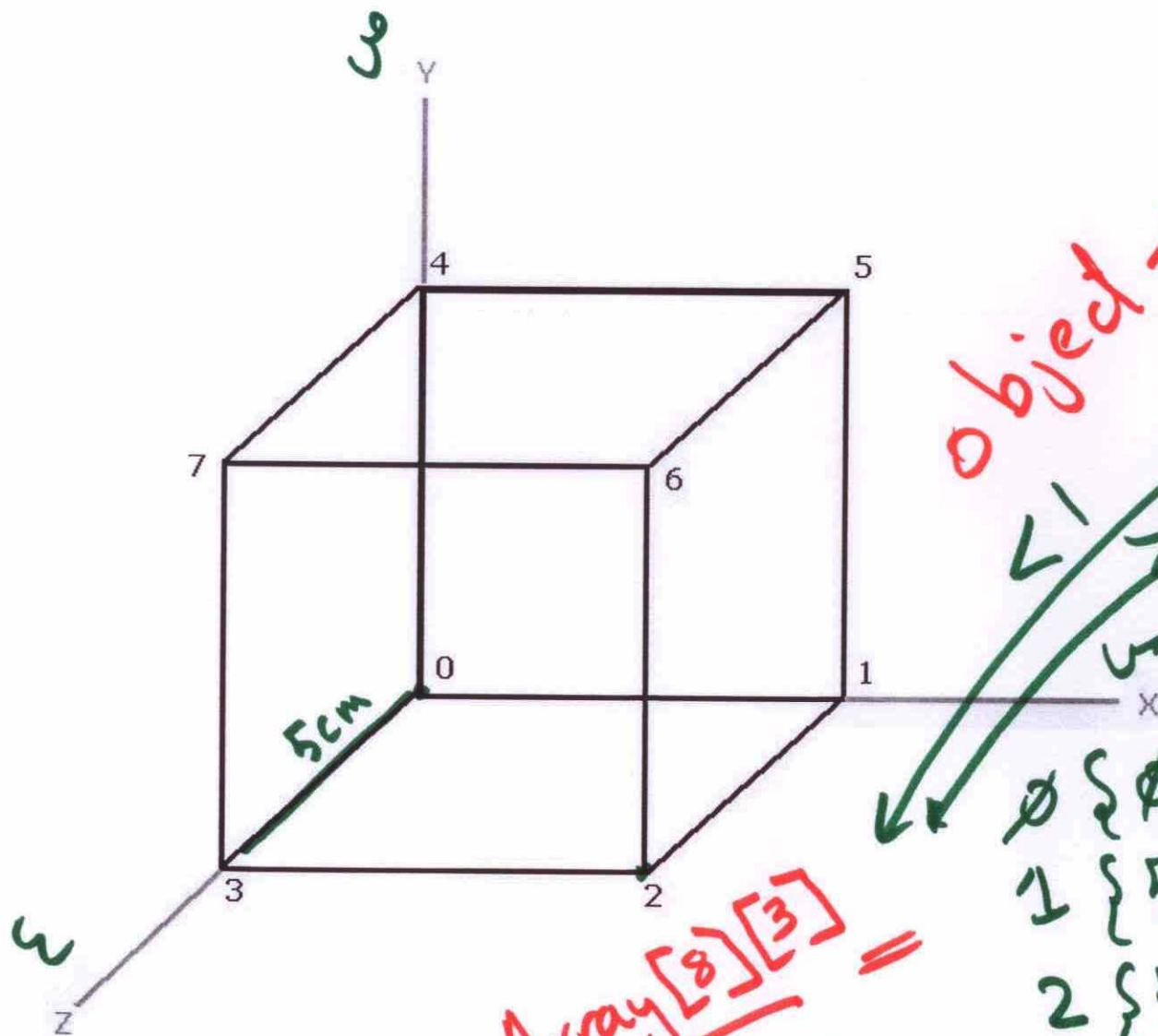
- هناك أشياء تتعامل مع بعضها البعض
- والشئ الواحد يجمع في داخله عملياته و بياناته.

الهدف

## ملاحظة

- ولكن هناك ما يعرف بقواعد البيانات Database ، هل تكفي لتغطي مفهوم هياكل البيانات Data Structures ؟





Object  $\Rightarrow$  Cube  
 فلبس

تخصيص

تاكيد

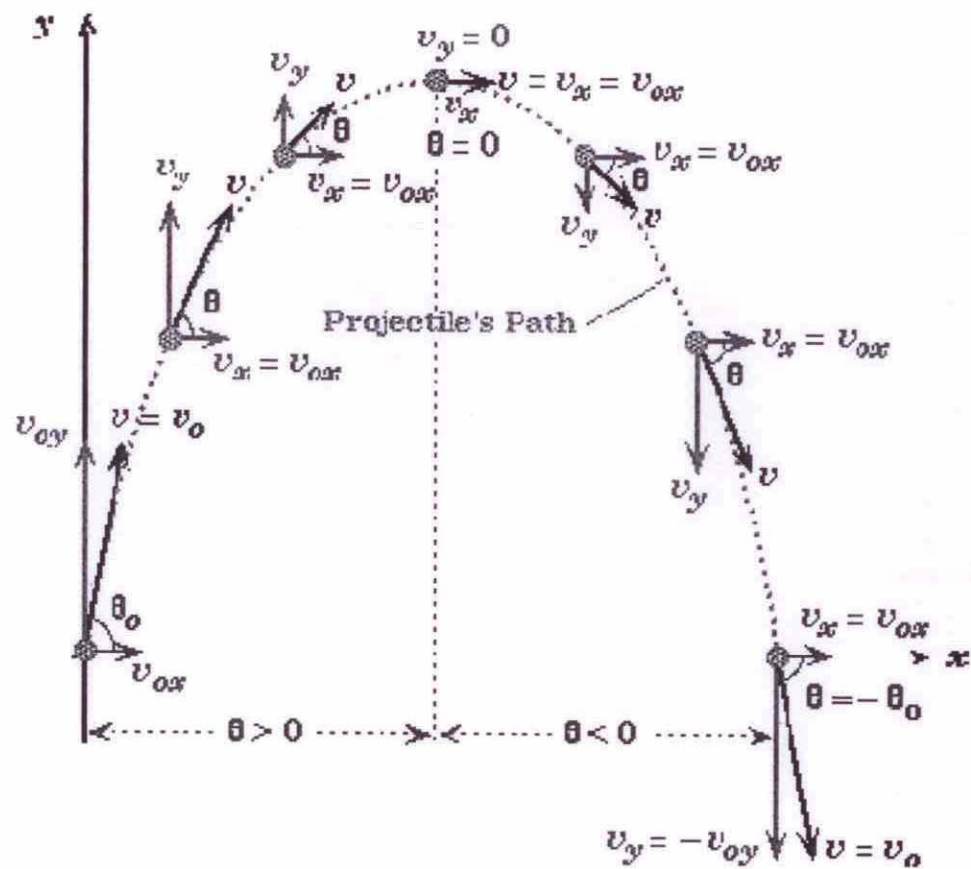
دوران

Array[8][3] =

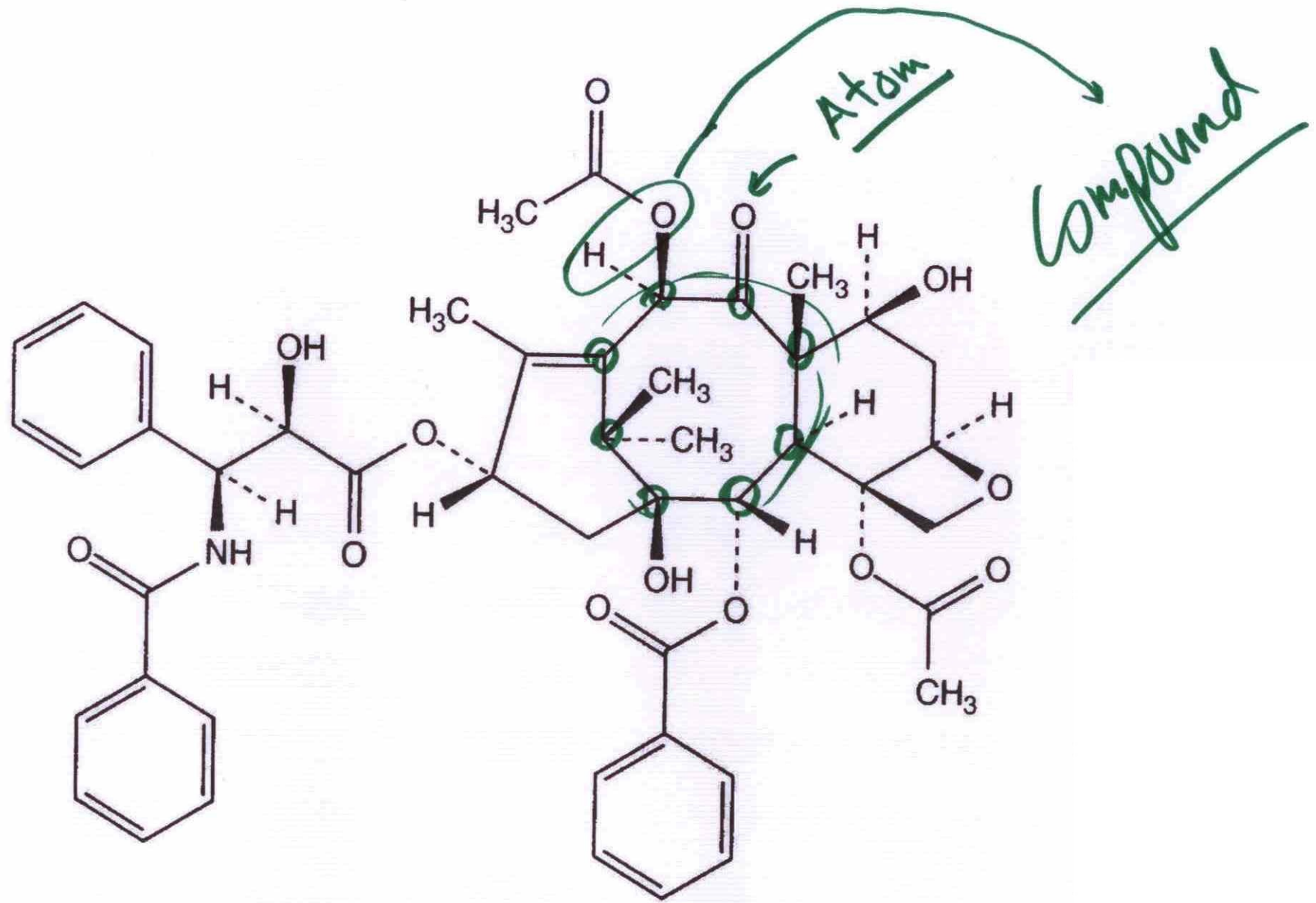
$\emptyset \{ \emptyset, \emptyset, \emptyset \}$   
 1  $\{ 5, \emptyset, \emptyset \}$   
 2  $\{ 5, \emptyset, 5 \}$   
 ...  
 7

Matrix  
 مصفوفة

$\begin{bmatrix} \emptyset & \emptyset & \emptyset \\ \vdots & \vdots & \vdots \end{bmatrix}$



Projectile



FURNITURE

PROJECT # 007 4121

DESIGNED BY ROH GARTI

STUDENT STEVEN KEPLINGER

DATE 10/20/98

SCALE 1/8" = 1'-0"

PROJECT ARCHITECTURAL

CONSTRUCTION/SYSTEMS

SK DESIGN

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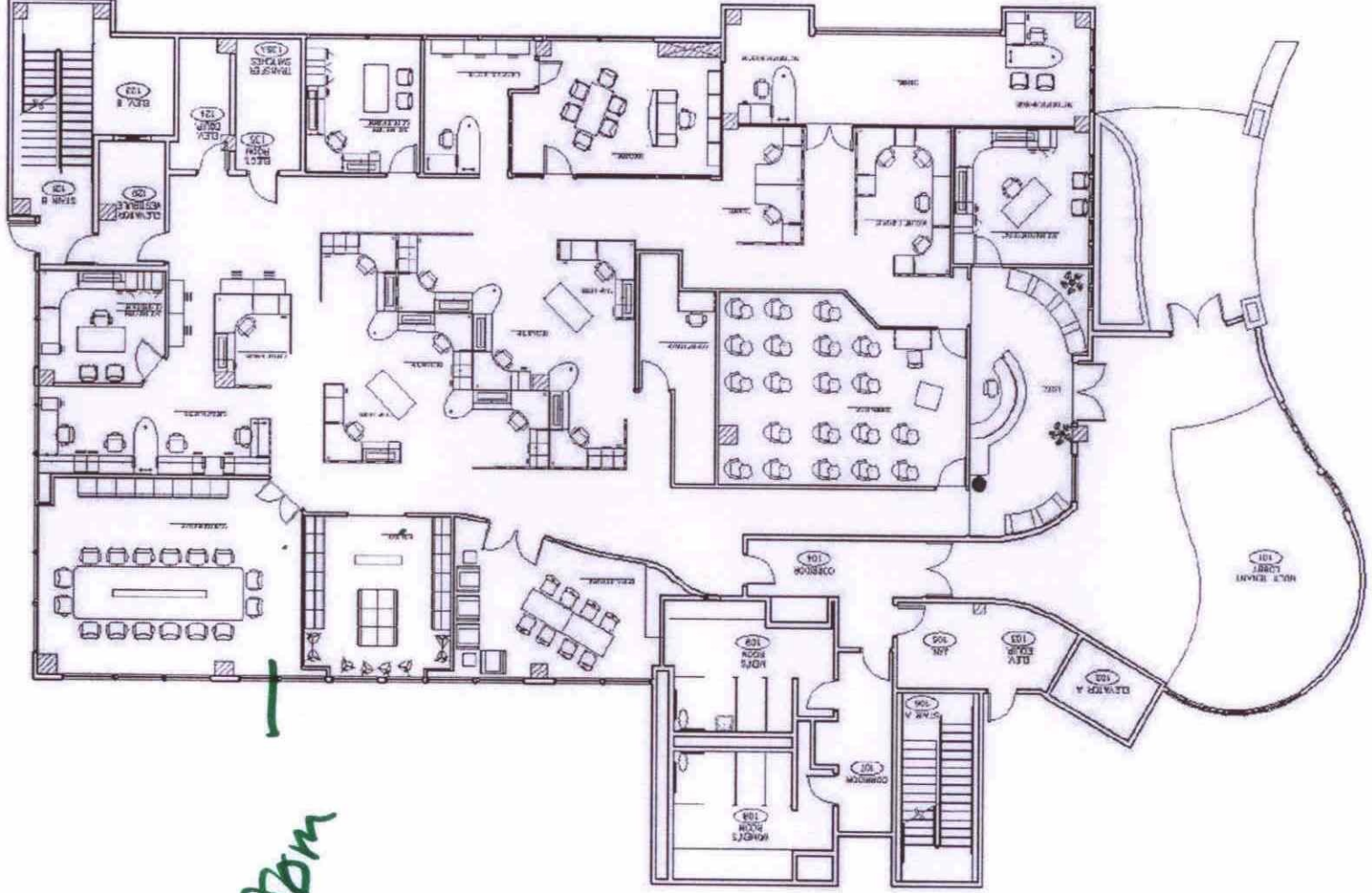
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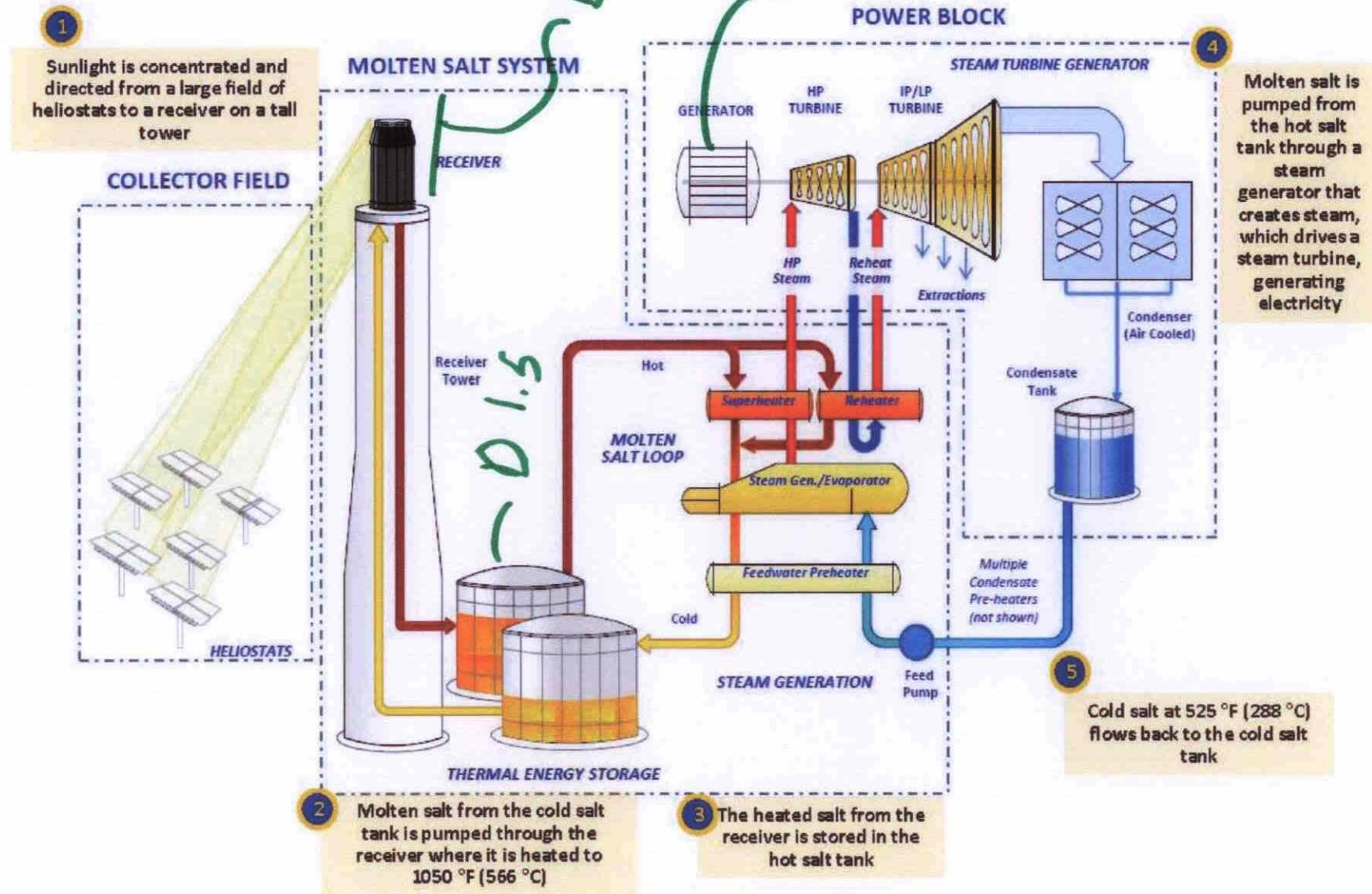


Figure 3 - Process Diagram of CPS Technology

