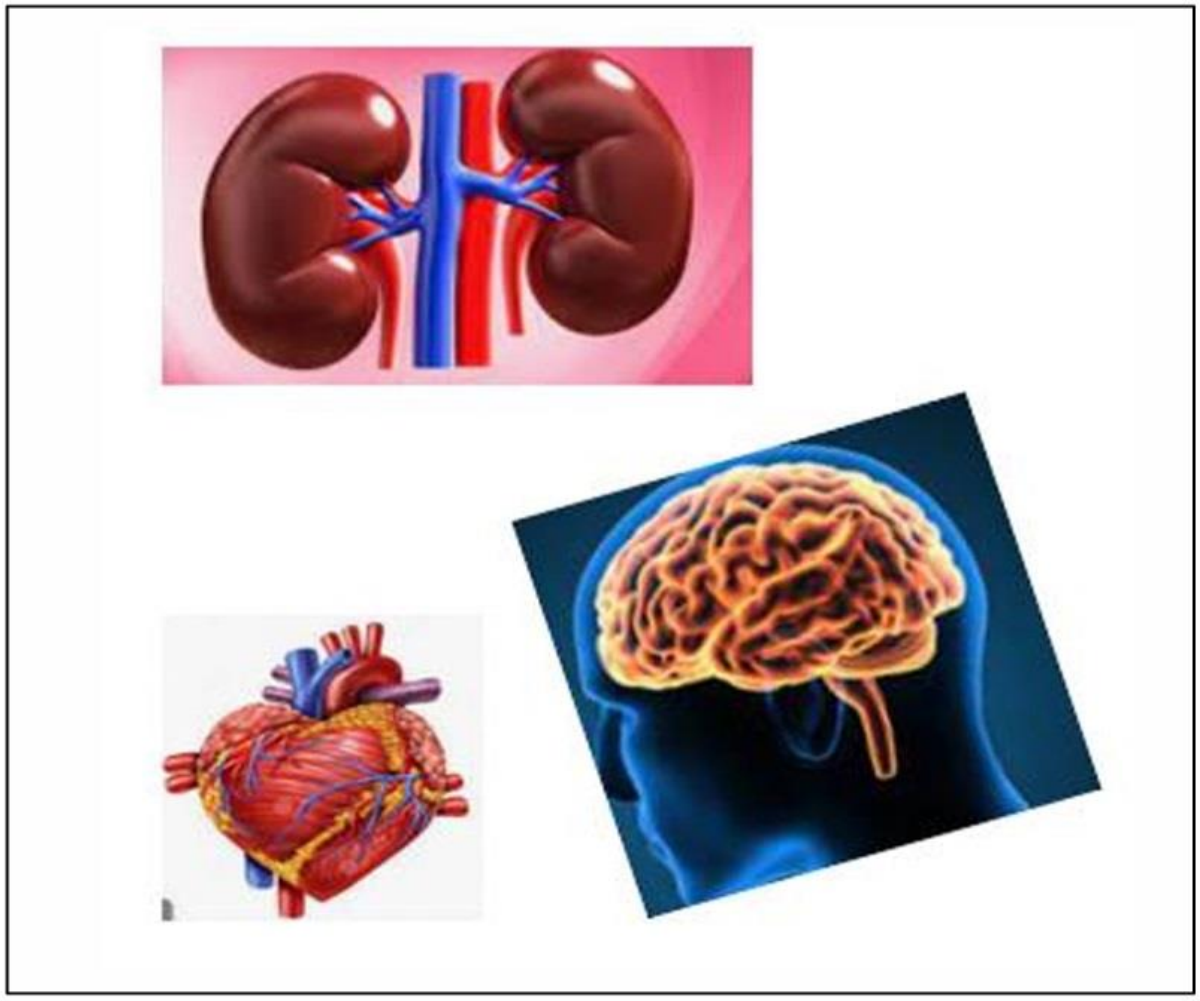
A4. Using concept of HTML image map identify various rectangle and circle areas for describing the functions of Kidney, Brain and heart in that area in another page or using in same page, by clicking those areas.



<!—A4.html -- >

```
<!DOCTYPE HTML>
<html>
<body>
    <center>
    <h1><i><u>Mapping an Image </u></i></h1>
    <p><h2>Click on the different human organs to know about them</h2></p>
    <img src="HumanParts.jpg" width="738" height="806" alt="humanparts " usemap="#Human Parts">
    <map name="Human Parts">
    <area shape="rect" coords="108,44,502,289" alt="Kidney" href="Kidney.html">
    <area shape="circle" coords="500,440,150," alt="Brain" href="Brain.html">
    <area shape="rect" coords="110,455,304,648" alt="Heart" href="Heart.html">
    </center>
    </map>
</body>
</html>
```

<!-- Kidney.html -->

```
<html>
<head>
<title>KIDNEY</title>
</head>
<body bgcolor="white">
<header><center>
<font color="black"><h1><i><u>KIDNEY</u></i></h1>
</font></center>
<aside>
<center>
<figure><h2><img src="kidney.jpg" height="400" width="400"></figur></center><p>
<h4><font color="black"><i>In humans, the kidneys are two reddish-brown bean-shaped blood-filtering organs that are a multilobar, multipapillary form of mammalian kidneys, usually without signs of external lobulation. They are located on the left and right in the retroperitoneal space, and in adult humans are about 12 centimetres (4+1⁄2 inches) in length. They receive blood from the paired renal arteries; blood exits into the paired renal veins. Each kidney is attached to a ureter, a tube that carries excreted urine to the bladder.<br>
The kidney participates in the control of the volume of various body fluids, fluid osmolality, acid-base balance, various electrolyte concentrations, and removal of toxins. Filtration occurs in the glomerulus: one-fifth of the blood volume that enters the kidneys is filtered. Examples of substances reabsorbed are solute-free water, sodium, bicarbonate, glucose, and amino acids. Examples of substances secreted are hydrogen, ammonium, potassium and uric acid. The nephron is the structural and functional unit of the kidney. Each adult human kidney contains around 1 million nephrons, while a mouse kidney contains only about 12,500 nephrons. The kidneys also carry out functions independent of the nephrons. For example, they convert a precursor of vitamin D to its active form, calcitriol; and synthesize the hormones erythropoietin and renin.</i></font></h4></p></aside>
</header>
</body>
<a href="A4.html">Human Parts</a>
</html>
```

<!-- Brain.html -->

```
<html>
<head>
<title>BRAIN</title>
</head>
<body bgcolor="white">
<header><center>
<font color="black">
<h1><i><u>BRAIN</u></i></h1>
</font></center>
<aside>
<center>
<figure><img src="brain.jpg" height="400" width="400"></figure></center>
<h4>
<align="justified"><p>
<font color="black"><i>The brain is an organ that serves as the center of the nervous system in all vertebrate and most invertebrate animals. In vertebrates, a small part of the brain called the hypothalamus is the neural control center for all endocrine systems. The brain is the largest cluster of neurons in the body and is typically located in the head, usually near organs for special senses such as vision, hearing and
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olfaction. It is the most energy-consuming organ of the body, and the most specialized, responsible for endocrine regulation, sensory perception, motor control, and the development of intelligence.
All vertebrate brains can be embryonically divided into three parts: the forebrain (prosencephalon, subdivided into telencephalon and diencephalon), midbrain (mesencephalon) and hindbrain (rhombencephalon, subdivided into metencephalon and myelencephalon). The spinal cord, which directly interacts with somatic functions below the head, can be considered a caudal extension of the myelencephalon enclosed inside the vertebral column. Together, the brain and spinal cord constitute the central nervous system in all vertebrates.</i></align>></p> </h4></aside>
</header>
</body>
Human Parts
</html>

<!--Heart.html-->

```
<html>
<head>
<title>HEART</title>
</head>
<body bgcolor="white">
<header><center>
<font color="black"><h1><i><u>HEART</u></i></h1>
</font></center>
<aside>
<center>
<figure><h2><img src="heart.jpg" height="400" width="400"></figure><center><p>
<h4>
<font color="black"><i>The heart is a muscular organ in most animals. This organ pumps blood through the blood vessels of the circulatory system. The pumped blood carries oxygen and nutrients to the body, while carrying metabolic waste such as carbon dioxide to the lungs.In humans, the heart is approximately the size of a closed fist and is located between the lungs, in the middle compartment of the chest, called the mediastinum.<br>
The heart pumps blood with a rhythm determined by a group of pacemaker cells in the sinoatrial node. These generate an electric current that causes the heart to contract, traveling through the atrioventricular node and along the conduction system of the heart. In humans, deoxygenated blood enters the heart through the right atrium from the superior and inferior venae cavae and passes to the right ventricle. From here, it is pumped into pulmonary circulation to the lungs, where it receives oxygen and gives off carbon dioxide. Oxygenated blood then returns to the left atrium, passes through the left ventricle and is pumped out through the aorta into systemic circulation, traveling through arteries, arterioles, and capillaries—where nutrients and other substances are exchanged between blood vessels and cells, losing oxygen and gaining carbon dioxide—before being returned to the heart through venules and veins. The heart beats at a resting rate close to 72 beats per minute. Exercise temporarily increases the rate, but lowers it in the long term, and is good for heart health. </i></font></h4></aside>
</header>
</body>
<a href="A4.html">Human Parts</a>
</html>
```