Kung Fu Panda, the awesomeness of belief

February 2009
CmpE 202-05

1. Abstract:

This topic is the story about a Giant Panda, who is a Kung Fu fanatic and who even in his wildest dreams, never thought of becoming a Kung Fu master, because of the lack of confidence on himself. Confidence is a virtue that is to be possessed by every individual in order to achieve his or her goal in life, and this story is yet another example for it. We may be confronted with many challenges, but if we believe in ourselves and persistently continue towards our goals, everything is possible. The story revolves around the idea that there is no secret ingredient for success other than the belief on one’s own self.

2. Description of the domain:

The Valley of Peace in ancient China is protected by the five furious warriors Tigress, Monkey, Mantis, Viper and Crane trained by the tortoise Master Oogway and his protégé, the red panda Master Shifu. The Giant panda Po, a lazy and inferior Kung Fu fanatic who works in a family owned restaurant, becomes the Dragon Warrior (supposedly the protector of the Valley from the evil snow leopard Tai Lung) due to an accident. None of the people of the Valley, including Master Shifu, believed that this clumsy, fat panda could be their protector and thus Po is subjected to a lot of discrimination. Shifu and Po later realize after seeing the Dragon scroll (which is believed to give limitless power to the reader) that the secret of success is to believe in one’s own self and thus the former teaches Kung Fu to the later using new training techniques. Po finally becomes an expert in Kung Fu and saves the Valley by defeating the evil Tai Lung.
Dia.2.2. From left to right: Masters Viper, Monkey, Mantis (on Monkey's head), Shifu, Tigress, and Crane. The Furious Five are homages to the Crane, Snake, and Monkey, Praying Mantis, and Tiger styles of Chinese martial arts.

Dia.2.3. The evil Tai Lung

3. Block Diagram:
4. **Description of the program that is wanted:**

1. Po wants to learn Kung Fu with the hope of changing into someone he himself can respect.

2. Po wants to defeat the evil Tai Lung and save the Valley of Peace.

5. **DETAILED REQUIREMENTS**

5.1 **FUNCTIONAL REQUIREMENTS**

5.1.1 **Valley of peace**

In China, there is a place called valley of peace protected by the furious five-Tigress, Monkey, Mantis, Viper and crane. These five are trained in kung fu by master Oogway the tortoise and his protégé Shifu the red panda.

5.1.2 **Po’s life**
Po, a young giant panda lives in the valley of peace working in his goose father Mr. Ping’s noodle restaurant. He cooks and serves noodles in the restaurant that he does not like.

5.1.3 Po’s father

Mr. Ping the Po’s father runs the noodle restaurant. He always wanted Po to take over his restaurant one day and tells him that there is a secret ingredient in making good noodles.

5.1.4 Tai lung

Tai lung, the snow leopard is Shifu’s former pupil and foster-son. He was imprisoned after turning into evil to get the dragon scroll. Master Oogway had a premonition that Tai lung will escape from his prison and attack the valley. Therefore, he wanted to hold a tournament to select the dragon warrior from the furious five, who gets the dragon scroll.

5.1.5 Panda and kung fu

Po the panda, though he works in his father’s noodles restaurant, he is a kung fu fanatic. Panda is very passionate about the kung fu and the furious five, he always dreams about them and want to master in kung fu; however it is difficult to attain due to his clumsiness and weight.

5.2 NON-FUNCTIONAL REQUIREMENTS

5.2.1 The Tournament

Master Oogway instructs Shifu to hold a tournament in order to select the legendary dragon warrior, who receives the dragon scroll, which is believed to have unlimited powers. Po is very anxious about the tournament and wants to watch it; instead, he is forced to take the noodles cart up the mountain, where the tournament is being held. By the time he goes there, the gates of the temple were closed.

5.2.1 Po becomes Dragon Warrior

Po desperately wants to see the match, so he straps himself to a set of fireworks and he reaches the middle of the ceremony. Oogway amazed by Po’s sudden appearance, points Po to be the dragon warrior.

5.2.2 Master Oogway sends Tai Lung to jail

Tai Lung, who is Master Shifu’s former pupil and foster-son, learns all the skills of Kung Fu from Master Shifu. Tai Lung wanted to achieve Dragon scroll secret to be most powerful creature. But, Master Oogway understands evil thoughts in Tai Lung’s mind and uses his powers to Imprison Tai Lung.

5.2.3 Po masters kung fu
Shifu berates and humiliates Panda into quitting, as he thinks the fat and clumsy panda cannot become a dragon warrior. The furious five also dismiss Po as a worthless. Oogway gets a promise from Shifu that he teaches kung fu to Panda and then he ascends to heaven in a swirl of flower petals. Meanwhile, Tai lung escapes from the prison and will be on the way to valley. Shifu discovers that Po displays impressive agility when motivated by food; he takes Po to the mountains for training and makes him a skilled warrior. Motivated by the tigress, the five of them go to defeat Tai lung, they come back to valley defeated. Shifu with a belief that Po is ready to fight he gives him the dragon scroll, when he opens it and see's there will be nothing in it but a reflecting surface. Po finds his father in the town, who says his secret of secret ingredient soup that is nothing. Po relates it to the dragon scroll and gets to know that there is no secret to become a great warrior.

5.2.4 Panda beats Tai lung

Learning the secret of the dragon scroll Po goes to the temple where Shifu is fighting with Tai lung and says that he is the dragon warrior. Tai lung hardly believes that a big, fat panda is a dragon warrior. Then, he fights with the panda, gets to know there is nothing in the dragon scroll, does not agree with the fact that there is no secret to be successful, and attacks Po again. Po defeats him by a special technique that he learnt from Shifu. The deeply impressed furious five accept Po as the kung fu master and superior.

6. Use cases and User Context

6.1. Use Case name: Cook & Serve noodles

Actors: Panda (Po), Goose (Father), Customer

Use Case description:

The Goose owns noodles restaurant. Goose wants Panda to be responsible towards family business of cooking and serving noodles to their customers in order to increase the restaurant profit.

6.2. Use Case name: Find the villain

Actors: Red Panda (Master Shifu), Snow leopard (Villain)

Use Case description:

The Red Panda finds pupil Snow leopard at the door of castle. Red Panda brings him in the castle and starts treating him like foster son.

6.3. Use Case name: Train the villain

Actors: Red Panda (Master Shifu), Snow leopard (Villain)
Use Case description:

Red Panda teaches all his Kung Fu skills to Snow leopard, so he can be a Dragon Warrior.

6.4. **Use Case name: Imprison the villain**

Actors: Snow leopard (Villain), Tortoise (Master Oogway)

Use Case description:

Snow leopard wants to achieve secret in the Dragon scroll to become very powerful. But, Tortoise understands evil thoughts in Snow leopard’s mind. Tortoise uses his powers against Snow leopard and sends him to the jail.

6.5. **Use Case name: Select as a Dragon Warrior**

Actors: Panda (Po), Tortoise (Master Oogway)

Use Case description:

The Tortoise select Panda as a Dragon Warrior, after his sudden appearance in warrior’s tournament.

6.6. **Use Case name: Get promise**

Actors: Red Panda (Master Shifu), Tortoise (Master Oogway)

Use Case description:

Master Shifu (Red Panda) berates and humiliates selected dragon warrior. Master Shifu (Red Panda) thinks selected dragon warrior is useless. However, Master Oogway (Tortoise) takes promise from Master Shifu (Red Panda) to teach kung fu to selected dragon warrior and disappears.

6.7. **Use Case name: Teach Kung Fu**

Actors: Red Panda (Master Shifu), Panda (Po)

Use Case description:

Master Shifu (Red Panda) teaches all Kung Fu skills to Panda. Master Shifu discovers Po’s agility towards food. Master Shifu (Red Panda) uses food to motivate Panda to learn Kung Fu lessons.

6.8. **Use Case name: Escape from Jail**
Actors:  Snow leopard (Villain), Soldiers

Use Case description:

Snow leopard escapes jail by defeating thousands of soldiers surrounding jail. Snow leopard continues towards village to destroy it.

6.9. **Use Case name: Give dragon scroll**

Actors: Red Panda (Master Shifu), Panda (Po)

Use Case description:

After getting news of villain`s escape from jail, Master Shifu (Red Panda) gives secret dragon scroll to Panda. Panda finds there is nothing written on the scroll, but just a reflecting surface.

6.10. **Use Case name: Reveal the secret**

Actors: Goose (Father), Panda (Po)

Use Case description:

Father reveals his secret of secret ingredient in noodles is actually nothing. Panda then relates secret of noodles with the secret in dragon scroll and realizes there is nothing secret to become great warrior.

6.11. **Use Case name: Defeat the villain**

Actors: Panda (Po), Snow leopard (Villain)

Use Case description:

Panda fights like a warrior and defeats Snow leopard to save village.

7. **References**

- Kung Fu Panda (2008)(The movie)

**Acknowledgement:**

**Entity**
Abhishek Zunjurwad
Vivek Devaraj
Kavya Puligundla