Agent Based Fortune Prediction System

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Abstract

Computational agent-based systems can improve the efficiency of traditional astrological fortune prediction system. Agents can make their own decisions and can adapt from their environment. The ability of agents is a very powerful tool for implementing intelligent systems. The agent-based approach allows the system designer to implement the system using multiple agents, with each agent specialized for a particular task. In this paper, the system is designed to develop the fortune prediction system using interface and collaborative agents; each agent is specialized for giving detail and exact predictions of user desired. The interface agent interacts between user and collaborative agent. The collaborative agent accepts the information from the interface agent, chooses the appropriate method, requests the required information from user through the interface agent, generates the results of the fortune prediction and finally sends back to the user via the interface agent. This system provides valuable response to user such as healthy, occupation, finance and lucky gems.

Keywords: interface agent, collaborative agent, agent.

1.   Introduction

A multi-agent system can be viewed as an artificial virtual society, in which agents can cooperate or coordinate to perform tasks. The agent requires a set of agreed messages, rules for actions based upon reception of various messages and assumptions of the communication channels [2].

An agent-based solution is useful and attractive because the various agents used in the solution inherently know how to do many things. For example, agents know how to communicate with other agents. A good agent-based design will utilize as many agents as are required and no more [2].

Agent is a computer system that is capable of independent action on behalf of its user or owner. Agent technology is well suited for use in applications that reason about the messages or questions received over a network. It presents interface agent and collaborative agent to automate the fortune prediction process. In this paper, agents make negotiation with other agent by using interface agent and collaborative agent to provide valuable advice and helpful guides for users who want to know their future prediction [1].

Like traditional applications, agent-based applications require careful analysis and design. Agents can be used to perform data translation and implement data systems interfaces that meet a wide variety of requirements [2].

2.   Theory Background

In the recent years, agent technology has found many interesting applications in e-commerce, decision support systems and internet applications. Agents have proven particularly useful in business scenarios, handling workflows, managing user profiles for personalization [1].

An agent is a software entity that can perform information-related tasks without ongoing human supervision. Intelligent agents are software entities that carry out some set of operations on behalf of a user or another program with some degree of independence or autonomy, and in so doing, employ some knowledge or representation of the user's goals or desires [1].

Agents are a more specific kind of agent. At a minimum, a software agent is defined as an autonomous software entity that can interact with its environment. Agents are implemented using software. This means that they are autonomous and can react with other entities, including humans, machines, and other software agents in various environments and across various platforms [2].

Agent-based systems technology has generated lots of excitement in recent years because of its promise as a new paradigm for conceptualizing, designing, and implementing software systems. This promise is particularly attractive for creating software that operates in environments that are distributed and open, such as the internet. Currently, the great majority of agent-based systems consist of interface agent and collaborative agent. However, as the technology matures and addresses increasingly complex applications, the need for systems that consist of multiple agents that provide combining agents apparent to get the user desire. Central to the design and effective operation of such multi-agent systems are a core set of issues and research questions that have been studied over the years by the distributed AI community [1].

3. Agent Technology

An agent is a computer system that is situated in some environment that is capable of autonomous action in this environment in order to meet its design objectives [2].

Agent involves theses properties:

- **Autonomous** - agents are proactive, goal-directed and act on their own performing tasks on one's behalf without necessarily requiring user initiation, confirmation, and notification.
- **Adaptive** -agents dynamically adapt to and learn about their environment. They are adaptive to uncertainty and change.
- **Cooperative** - agents coordinate and negotiate to achieve common goals. They are self-organizing and can delegate [1].

The great majority of agent based system consists of a single agent. But agent technology matures and addresses increasingly complex applications, the need for system consists of multiple agents that communicate in a peer-to-peer fashion [4].

Agent can cooperate by using an Agent Communication Language (ACL) to support the sharing of a rich agreed understanding concerning the semantics of the message content [2].

Agents are capable of interacting with other agents by using agent communication language to coordinate, cooperate and negotiation to achieve their goals [1].

3.1   Interface Agent

Interface agents lead to a somewhat different design style, brought on by the possibility that the agent may need to interact with the interface while the user is also interacting with the interface [3].

The user may or may not be aware of the agent's activities at any given moment. This design style has its own considerations and tradeoffs, and deserves more attention in the interface design field [3].

Interface agent can affect the objects in a direct manipulation interface. The interface agent reads input that the user presents to the interface, and it can make changes to the objects the user sees on the screen, though not necessarily one-to-one with user actions [3].

The agent may observe many user inputs, over a long period of time, before deciding to take a single action, or a single user input may launch a series of actions on the part of the agent, again, possibly over an extended period of time [2].

The agent may also display suggestions, or perform direct-manipulation actions on objects in the displayed interface, based on input implicitly collected from the user [1].

Interface agents are becoming more and more attractive due to the increasing complexity of user interfaces and the tasks to which they are applied. Interface agents provide a way out of this dilemma [3].

3.2   Collaborative Agent

Collaborative agents are able to find global solutions to complex systems using local knowledge rather than a complete global knowledge set [4].

Collaboration and communication between various agents can take many different forms. This is only concerned with those forms that aid an agent in making better decisions in the context of new situations [3].

Collaborative communication between agents occurs in the form of request and reply messages. An agent is not required to reply to any message it receives. This leaves each agent the freedom to decide when and whom to help [4].

Any request always contains the agent's identifier, the agent's contact information (for replies) and a request identifier (reqid) generated by the agent issuing the request. The reqid is necessary since an agent may send out multiple requests simultaneously whose replies may arrive out of order [1].

4. Design of the System

The proposed system develops to generate fortune prediction by using six methods: Hindu Zodiac Signs, Chinese Horoscope Signs, Numerology by Name, Numerology by Day of Birth, That_Yout and Numerology Gipsy Method. The system can generate the results which depend on not only user's input (e.g., year of birth, born day, name, etc.) but also user's choice that he/she wants to predict the fortune.

Firstly, the user can choose the wishful facts (e.g., day of birth, month of birth, name, etc.). The system generates the predictions that match with the facts that the user chooses. To generate these predictions, the interface agent receives the facts that the user chooses. Then this agent interacts with collaborative agent and sends the user's chosen facts to the collaborative agent. The collaborative agent generates many available predictions (e.g., mentality, healthy, lucky gems, marriage partner, etc.) and sends to the interface agent. The interface agent allows the user to choose one or more predictions among these. Based on these required predictions, the collaborative agent generates suitable method.

If the required predictions of the user conflict with two or more methods, the collaborative agent unwinds back to interface agent, to request the user what kind of methods he or she wants to choose. After the user has chosen the required methods, the interface agent sends the received facts to the collaborative agent. The collaborative agent requests to the user the required data to generate predictions. After filling the required data, the interface agent sends these data to the collaborative agent. After calculating the user data, the collaborative agent sends the fortune prediction to the interface agent.

Finally, the user can get the detail information of the user selected prediction. This system is applied to generate the result of prediction for people who would like to know about their fortune. The designed of the proposed system is shown in Figure 1.
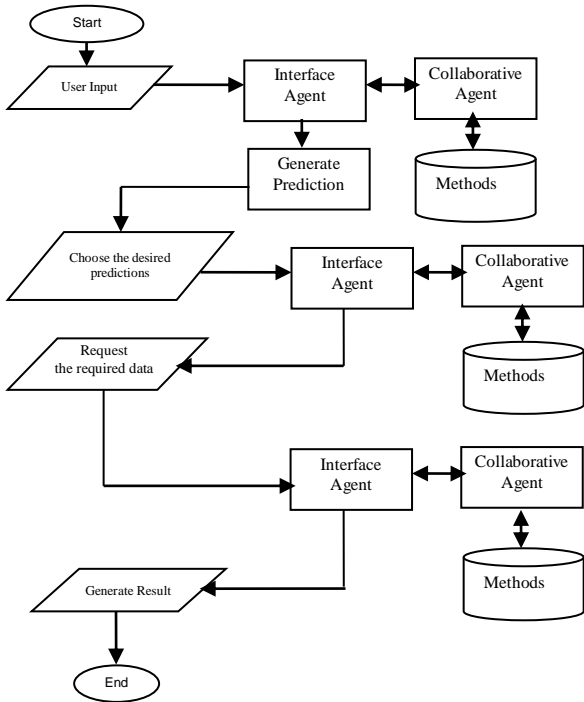

Figure 1. System Design of the Proposed System

4.1 Traditional Hindu Zodiacal Signs

Traditional Hindu Astrology has a sidereal coordinate zodiac system with twelve signs.

Astrology is represented by the astrological signs. The names of the **Hindu zodiacal signs** are "ram" (Aries), "bull" (Taurus), "pair" (Gemini), "crab" (Cancer), "lion" (Leo), "girl" (Virgo), "balance" (Libra), "scorpion" (Scorpio), "armed with a bow" (Sagittarius), "sea-monster" (Capricorn), "pitcher, water-pot" (Acquarius), "fish" (Pisces).

If the user chooses the input (day of birth and month of birth), the user can know about the predictions of mentality, character, behavior, appearance, hobby, occupation, healthy, marriage life and love by using **Hindu astrology** [8][9].

March	21	-	April	20	->	Aries
April	21	-	May	20	->	Taurus
May	21	-	June	20	->	Gemini
June	21	-	July	20	->	Cancer
July	21	-	August	20	->	Leo
August	21	-	September	22	->	Virgo
September	23	-	October	22	->	Libra
October	23	-	November	22	->	Scorpio
November	23	-	December	20	->	Sagittarius

December	21	-	January	19	->	Capricorn
January	20	-	February	20	->	Acquarius
February	21	-	March	20	->	Pisces

4.2 Chinese Horoscope signs

Chinese Horoscope Signs, Rat, Ox, Tiger, Rabbit, Dragon, Snake, Horse, Sheep, Monkey, Rooster, Dog and Pig, 12 Chinese Zodiac animal signs can be converted into Five Elements, which are Metal, Water, Wood, Fire and Earth [6][10].

Five elements are the key to find the user's lucky times and places. To know the user's five elements is the way to live luckier, wealthier, healthier, happier and longer. If the user chooses the input (day of birth, month of birth and year of birth), the user can know about the predictions of appearance, character, hobby and job, business life, fate, finance, healthy, friendship and opponent, marriage partner, lucky colors, lucky gems and lucky charms by using **Chinese Horoscope**.

In addition you can predict the compatibility with whoever the user would like to know. The user can recognize good or bad condition for life [6][10].

ကျားနှစ်ဖွားများ၏ သက္ကရာဇ်နှင့်ပိုင်ဆိုင်သောဓာတ်စင်

၈-၂-၁၉၀၂	မှ	၂၈-၁-၁၉၀၃	----	ရေ-ကျား
၂၆-၁-၁၉၀၄	မှ	၁၃-၂-၁၉၀၅	----	သစ်သား-ကျား
၁၃-၂-၁၉၂၆	မှ	၁-၂-၁၉၂၇	----	မီး-ကျား
၃၁-၁-၁၉၃၈	မှ	၁၈-၂-၁၉၃၉	----	မြေ-ကျား
၁၇-၂-၁၉၅၀	မှ	၅-၂-၁၉၅၁	----	သတ္တု-ကျား
၅-၂-၁၉၆၂	မှ	၂၄-၁-၁၉၆၃	----	ရေ-ကျား
၂၃-၁-၁၉၇၄	မှ	၁၀-၂-၁၉၇၅	----	သစ်သား-ကျား
၉-၂-၁၉၈၆	မှ	၂၈-၁-၁၉၈၇	----	မီး-ကျား
၂၈-၁-၁၉၉၈	မှ	၁၅-၂-၁၉၉၉	----	မြေ-ကျား
၁၄-၂-၂၀၁၀	မှ	၂-၂-၂၀၁၁	----	သတ္တု-ကျား
၁-၂-၂၀၂၂	မှ	၂၁-၁-၂၀၂၃	----	ရေ-ကျား
၁၉-၂-၂၀၃၄	မှ	၇-၂-၂၀၃၅	----	သစ်သား-ကျား

4.3 Numerology by Name

Numerology is the study of numbers, and the occult manner in which they reflect certain aptitudes and character tendencies, as an integral part of the cosmic plan. Each letter has a numeric value that provides a related cosmic vibration [5].

The sum of the value derived from the letters in the name provides an interrelation of vibrations. These numbers show a great deal about character, behavior, mentality, fancy, purpose in life, what motivates, and where talents may lie [7].

Experts in numerology use the numbers to determine the best time for major moves and activities in life. You can compare the fate of people concerned and the world's famous people.

1	2	3	4	5	6	7	8	9
a	b	c	d	e	f	g	h	i
j	k	l	m	n	o	p	q	r
s	t	u	v	w	x	y	z	

Then we calculate a total 'name number' like this:
(Margaret Thatcher = England's first woman Prime Minister).

```
M A R G A R E T          T H A T C H E R
4+ 1+9+7+ 1+ 9+5 + 2     2+ 1+8+2+ 3+ 8+ 5+ 9

      =38                      =38

3+8 =11                  3+8 =11

1+1=2                    1+1=2
           2+2= 4
```

Number 4 has its own meaning:

ကမ္ဘာကိုလွှမ်းမိုးချင်ကြသည်။လူအများကို ထိန်းချုပ်ရခြင်းကိုလိုလားသည်။ အဆင့်အတန်းမြင့်မားသော ခင်ပွန်း၊ဇနီး ကို များသောအားဖြင့်ရကြသည်။ အမိန့်ပေးခြင်းကို ရှုမုန်းကြသည်။

4.4 Numerology by Day

The sum of the value derived from the day of birth provides an interrelation of vibrations. These numbers show about nature, mentality and character, famous person, lucky days, lucky gems, healthy and strange year. If the user chooses the input (day of birth), the user can know about these predictions [11].

4.5 That_Yout

This system has the facility of predicting the percentage of good or bad condition of age years for life. For life wider foretells of age year are grouped into good or bad luck categories.

If the user chooses the input (born day, year of birth, month of birth, day of birth, Myanmar born year), the user can know percentage of good or bad condition, finance, facts of do and don't, good or bad hypothesis and cautions of this year. It will be a good relief to keep away the causes of bad luck recognized [13].
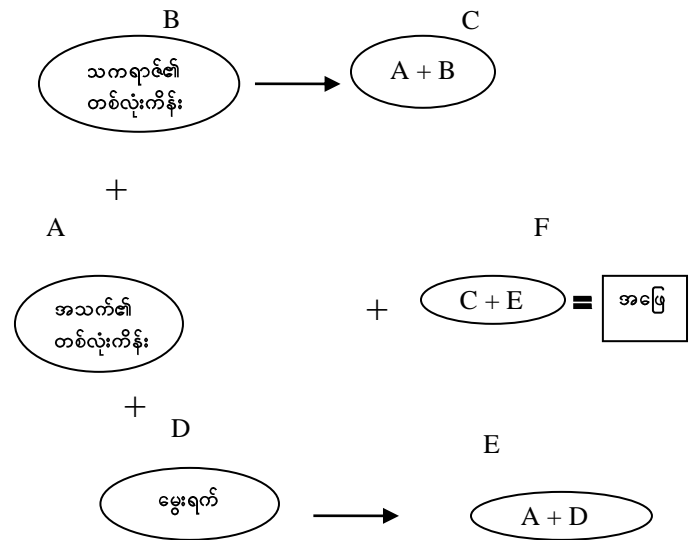
တနင်္ဂနွေ ၁	တနင်္လာ ၂	အင်္ဂါ ၃
သောကြာ ၆		ဗုဒ္ဓဟူး ၄
ရာဟု ၈	ကြာသာပတေး ၅	စနေ ၀

အသက် ၂၂ ရှိသော တနင်္ဂနွေသားကိုတွက်လိုလျှင် ၂၂%၈= ၆ အကြင်း ၆ ရ၍ ကြာသာပတေးသက်ရောက် ဖြစ်သည်။

၁၃၄၇%၈=၃
မွေးသက္ကရာဇ် ၁၃၄၇ ကို ၈ ဖြစ်စားလျှင် အကြင်း ၃ ရ၍ ကြာသပတေးသိုက် သက်ရောက် ဖြစ်သည်။ ကောင်းကျိုး––၅၀%
တရားဘာသာရေး၊အတွေးအခေါ်စိတ်ကူးများမည်။အလှူ၊ဒါနပြုရ မည်။ငွေကြေး၊စုတ်လ၁တ်ဝင်မည်။

4.6 Numerology Gipsy

Using Numerology Gipsy Method, the user can realize good or bad luck that will hit throughout this year and can prepare how to overcome the obstacles coming across the user. It is important to let you know of the years which will be good or bad for the user [12]. If the user chooses the input (year of birth, month of birth, day of birth and year the user want to know prediction), the user can know about good or bad condition, facts of do and don't, cautions and motivates of year the user want to know.

```
              B                          C
       ( သက္ကရာဇ်၏          ( A + B )
         တစ်လုံးကိန်း )

              +

       A                                F
    ( အသက်၏                ( C + E ) = အဖြေ
      တစ်လုံးကိန်း )     +

              +

              D                          E
        ( မွေးရက် )           ( A + D )
```

အဖြေ (၄)ဖြစ်ခဲ့လျှင် ၄၀ ယူပါ။
အဖြေ (၅)ဖြစ်ခဲ့လျှင် ၁၀ ယူပါ။
အဖြေ (၆)ဖြစ်ခဲ့လျှင် ၁၂ ယူပါ။
အဖြေ (၇)ဖြစ်ခဲ့လျှင် ၁၄ ယူပါ။
အဖြေ (၈)ဖြစ်ခဲ့လျှင် ၁၆ ယူပါ။
အဖြေ (၉)ဖြစ်ခဲ့လျှင် ၁၈ ယူပါ။
အဖြေ (၅၃)ဖြစ်ခဲ့လျှင် ၃၅ ယူပါ။
အဖြေ (၅၄)ဖြစ်ခဲ့လျှင် ၄၅ ယူပါ။
အဖြေ (၅၅)ဖြစ်ခဲ့လျှင် ၁၀ ယူပါ။
အဖြေ (၅၆)ဖြစ်ခဲ့လျှင် ၁၁ ယူပါ။
အဖြေ (၅၇)ဖြစ်ခဲ့လျှင် ၁၂ ယူပါ။
အဖြေ (၅၈)ဖြစ်ခဲ့လျှင် ၁၃ ယူပါ။
အဖြေ (၅၉)ဖြစ်ခဲ့လျှင် ၁၄ ယူပါ။
စသည်ဖြင့် ကိန်းချုံ့ခြင်း၊ ပြောင်းပြန်လှန်ခြင်းပြု၍ ယူပါ။
၈.၁၂.၁၉၈၆ နေ့,မှာ မွေးတဲ့လူကို တွက်မယ်ဆိုပါစို့.–

```
         ယခုသက္ကရာဇ် 2009
                   –  1986
( မွေးလမကျော်ခင် )  23  ( မွေးလကျော်လွန်ပြီးသူ ၂၄နှစ် )
               5  +  2  -----7
မွေးလမကျော်သ    23    2009  ( တွက်လ၁သောနှစ် )
အသက်
                      20 = 20
               5  +  8  ------13
```

အဖြေ ၂၀ ဂျစ်ပစီဟောကိန်းတွင် ကြည့်ပါ။

၂၀ ကမ္ဘာ့လောက

ဘုန်းတန်ခိုးတက်ချိန် အလုပ်ကျယ်ပြန့်ချိန်

ဒီအချိန်ပိုင်းမှာ စိတ်ဓာတ်ဟာ အရေးကြီးတယ်။ သင့်အနေနဲ့ မရ မရပ်ချင်ဘဲ ရပ်သွားရတဲ့ ကိစ္စတွေရှိရင် ပြန်ပြီးလုပ်ခွင့်ရမယ်။ ဆံ ဆုံးရှုံးသွားတာတွေရှိရင်လည်း ပြန်ပြီး ဖြစ်လာမယ်။ သင်က လက်တွဲမှ လက်တွဲမဖြစ်ချင်ဘဲ ဖြတ်သွားတဲ့ဝိတ်ဆွေပဲဖြစ်ဖြစ် အဖော အဖော်ပဲဖြစ်ဖြစ် ဒီအချိန်မှာ သင် သင့်ဆီကို ပြန်ရောက်လာတတ်တယ်။ နှစ်ရှည်လများ ကွဲကွာနေသူတွေနဲ့ ပြန်ပြီး ပြန်ပြီး ဆုံတွေ့ရတတ်တယ်။

ဒါပေမယ့် တစ်ခုသတိထားရမှာက ဒီသက်ပိုင်းမှာ ဟို ဟိုဟာလုပ်မလို၊ ဒီဟာ လုပ်ရမလိုနဲ့ အချိန်ကုန်သွားတတ်တယ်။ တစ်ခုခုကို ဆုံးဖြတ်ချက်ချပြီး လုပ်ဖြစ်အောင် သာ လုပ်လိုက်ပါ။ အောင်မြင်ဖို့က သေချာပါတယ်။ ကံကောင်းတဲ့နှစ်ဆိုပြီး ဘာမှ ဘာမှမလုပ်ဘဲနေနေရင်တော့ ဘာမှဖြစ်လာမှာ မဟုတ်ဘူး။ ဆိုလိုတာက ကံတ ကံတရားက မျက်နှာသာပေးတဲ့နှစ်ပါ။ သင်က သင်က အလုပ်လုပ်ဖို့လိုတယ်။ ဆုံးဖြတ်ချက် ပိုင်ပိုင်နိုင်နိုင်ချရဖို့ လိုတယ်။

4.7 Implementation of Fortune Prediction System

The home page design of the system is illustrated in Figure 2. The url for home page is http://localhost:49540/2000/Default1.aspx.
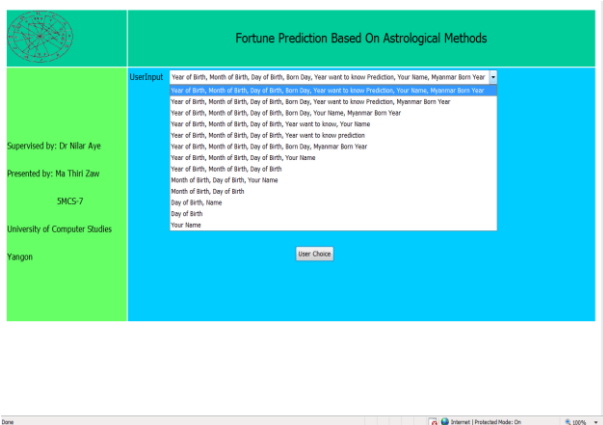

Figure 2. User Input for Fortune Prediction

In Figure 2, the user can choose any kind of user input among thirteen inputs. After choosing the input "Year of Birth, Month of Birth, Day of Birth, Born Day, Year want to know Prediction, Your Name, Myanmar Born Year" to ask for the user's fortune prediction, the user clicks "User Choice" button. After clicking the button, Figure 3 will appear. This system generates the necessary predictions depended on the user input presented in Figure 2.

Figure 3. A Window Form to choose Predictions for Fortune

In Figure 3, the user can choose the required predictions for his or her fate. The user can choose any one among presented predictions in Figure 3. The predictions may vary based on the user's choice in Figure 2. The collaborative agent generates the suitable predictions that match with the predictions that the corresponding methods can generate. After the user has chosen the required predictions ("Healthy", "Finance", "Character" and "Numerological Name"), the user clicks "Input" button. And then Figure 4 will appear.
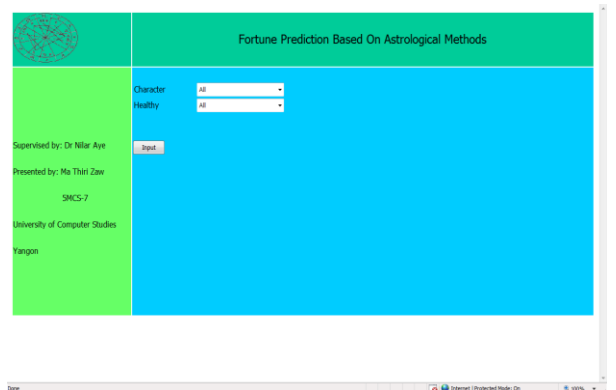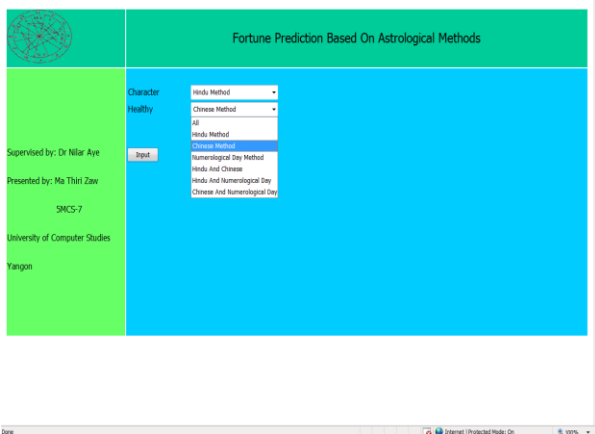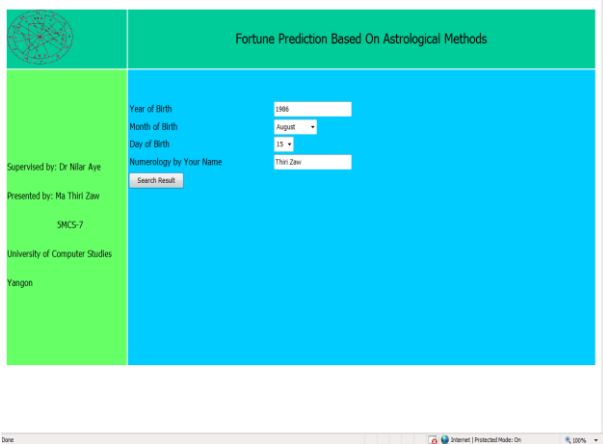

Figure 4. A Window Form to select methods for Character and Healthy

In Figure 3, the user selected "Healthy", "Finance", "Character" and "Numerological Name" predictions. The required predictions of the user conflict with those of many methods. So, the system allows the user to choose the required method that the system generates according to the user's desired results. This form is shown in Figure 4. "Numerological Name" can be calculated by "Numerology by Name Method". "Finance" can be calculated by "Chinese Method". So, this system does not request method for "Numerological Name" and "Finance". "Character" can be calculated by "Hindu Method" or "Chinese Method". Furthermore, "Healthy" can be calculated by "Hindu Method" or "Chinese Method" or "Numerological Day Method". So, this system requests method to predict "Character" and "Healthy". This form is shown in Figure 5.
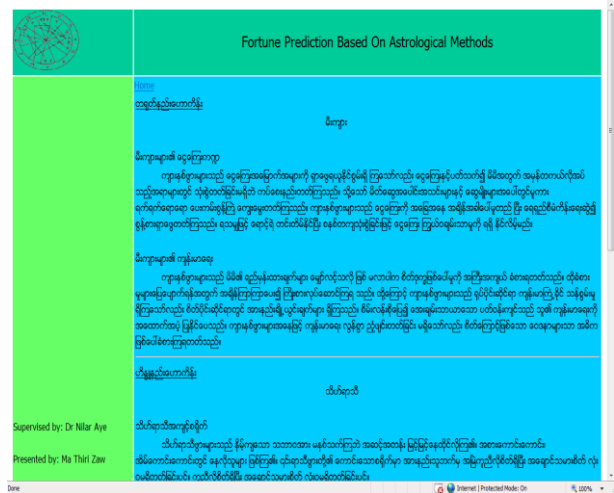
Figure 5. A Window Form to select methods for Healthy

In Figure 5, the user can choose "Hindu Method" or "Chinese Method" or "All (Hindu and Chinese Method)" to predict "Character". Moreover, the user can choose "Hindu Method", "Chinese Method", "Numerological Day Method", "Hindu and Chinese", "Hindu and Numerological Day", "Chinese and Numerological Day" and "All (Hindu, Chinese and Numerology Day Method)" to predict "Healthy". After the user has selected "Hindu Method" for "Character" and "Chinese Method" to predict "Healthy", the user clicks "Input" button. And then Figure 6 will appear.

Figure 6. A Window Form to fill Required Facts

In Figure 6, the system requests the required facts from the user to generate the result of the user selected prediction. After filling the facts that the system requested, the user clicks "Search Result" button. And then Figure 7 will appear.

Figure 7. A Window Form to display the Result of User's Fortune Prediction

In Figure 7, this system displays the detail of user result for fortune prediction of "Healthy", "Finance", "Character" and "Numerological Name".

5. Conclusion

The use of knowledge based as components within safety has become more and more widespread and has attracted renewed attention in agent based intelligent web-applications.

A very common technique operates the agents in these systems. They consist of a set of agents, which-taken together-define the overall behavior of the system. Each prediction method operates as agent in order to generate valuable advice and helpful guides for users who want to know their future prediction

This system has the facility of predicting this year of your life whether of good or bad condition, healthy facts for you, and good or bad luck of age years for life.

6. References

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[9]   ရာသီခွင်ဟောကိန်း(သန်းဝင်းလှိုင်)

[10]   တရုတ်ဂမ္ဘီရဝေဒပညာ(ဆရာဦးခန့်ကျော်)

[11]   ဂဏန်းဗေဒင်(သန်းဝင်းလှိုင်)

[12]   ချူးမရော်လော်ဂျီဂျစ်ပစီဟောကိန်း(မင်းသိင်္ခ)

[13]   ကုဋေ၆၀၀နဲ့ရက်ပေါင်း၃၆၅၀၀အတွက်
        တစ်သက်တာတစ်သက်စာ(ပန်းမင်းပိုလ်)