

Sport

WTA's top twenty

NEW YORK, Nov 25 (Reuters): WTA rankings after the year-ending Chase Championships on Sunday:

1. Graf (GER)
2. Equal Seles (US)
2. Equal Sanchez-Vicario (SPA)
3. Novotna (Czech Rep)
4. Hingis (SWI)
5. Martinez (SPA)
6. Huber (GER)
7. Majoli (CRO)
8. Date (JAP)
9. Davenport (US)
10. Paulus (AUS)
11. Spilaea (US)
12. Rubin (US)
13. Schultz (NED)
14. Fernandez (US)
15. Decugis (FRA)
16. Habsudova (SLOV)
17. Coetzer (RSA)
18. Maleeva (BLG)
19. Wiesner (AUS)
20. Pierce (FRA)

IOC team ends visit to Rio

RIO DE JANEIRO, Nov 25: International Olympic Committee officials said on Sunday they were impressed with public enthusiasm for Rio de Janeiro's bid to attempt the 2004 Olympics, reports Reuters.

But the group, who completed their three-day inspection of the city on Sunday, also appeared concerned about the pollution of Guanabara Bay, the picture postcard by on which part of the city is built.

"The committee appreciated the enormous support given to the candidature by the Cariocas (natives of Rio) and the people of Brazil and the different levels of government," said Thomas Bach, president of the IOC's evaluation committee.

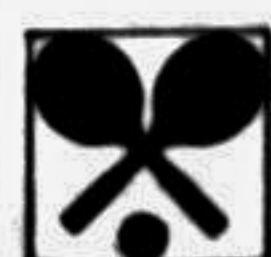
Bach was evidently impressed after the Rio 2004 committee laid out a host of sporting events on Copacabana Beach in front of the hotel where the IOC officials were staying.

These included an event in which tribe of Brazilian Indians in traditional dress took part in a log carrying race and a tournament of foot-volleyball, a sport frequently seen on local beaches.

Two other positive points were the participation allowed to non-governmental groups by the Rio 2004 committee and the fact that the sporting venues were concentrated in five areas of the City, Bach said.

The Olympic Stadium and Village would be built on the campus of the Federal University, which is on an island partly bordered by one of the city's most polluted rivers. During low tide and hot weather, it exudes an unbearable stench.

Steffi stops Hingis' run



NEW YORK, Nov 25: Steffi Graf, the best of her time and possibly of all time, capped a stellar year by beating rising star Martina Hingis in the season-ending Chase Championships on Sunday, reports Reuters.

The world number one was pushed to the five-set limit by the sensational 16-year-old Swiss player, but Graf answered the challenge to hold onto her title, winning 6-3, 4-6, 6-0, 4-6 and 6-0 at the two million dollar event at Madison Square Garden.

"Wherever she plays, she wins the tournament," Hingis, who was hampered by cramping in her thigh in the last two sets, said of the 27-year-old Graf. The German won all three Grand Slams she played this year, missing only the season-opening Australian Open to recuperate from foot surgery.

Graf volleyed back the compliment to Hingis, who last year failed to qualify for the elite 16-player field.

"As fast as she's going, she's definitely the one to look out for, no question," Graf said of Hingis, who will finish the year at a career high number four ranking in the world.

"The way she's been playing, without being afraid, with the freshness, I definitely see her as the one."

But right now Graf is the one. Since winning her first major in 1987 at the French Open, Graf has won 21 Grand Slam singles titles. That is second best on the all-time list, three behind Australian Hall of Famer Margaret Court.

Graf will finish this year atop the world rankings for a fourth year in a row. Her 500,000 dollar first place prize money pushed her earnings this season to more than 2.5 million dollars.

Her year was all the more remarkable in view of the nagging injuries she battled throughout. Last week she was forced to quite with a bad back in the middle of the Philadelphia final.

"If I had a wish list for next year, it would be my health, that is my top priority," said Graf, who iced her chronically sore left knee in the final two sets here. "I'm just physically not in the shape to be at my peak."

Not as visible, but more hurtful, was the year-long pain of her father Peter's imprisonment on tax evasion charges in Germany. His trial started two months ago and only last week was he released on bail.

"I think I topped off last year. I really outdid myself again, this year," Graf said of her capacity to play through her problems.

Graf said that after she finishes up some business in the United States, she will return home within the next week and will likely visit him. She has not seen Peter since his jailing 15 months ago.



QUEEN & HEIR-TO-THE-THRONE! World number one Steffi Graf (L) poses for photographs along with her likely successor teenage tennis sensation Martina Hingis of Switzerland after the marathon five-set final of the Chase Championships at Madison Square Garden on Nov 24. The 15-year-old Swiss gave Graf a good run for her money before succumbing to a 3-6, 6-4, 0-6, 6-4, 0-6 defeat.

—AFP/UNB photo

Graf has now won the championships five times, after beating fellow German Anke Huber last year in another five-set final.

This one lasted nearly three hours, and Hingis almost did not make it all the way. A cramp in her left thigh hobbled her in the final games of the

fourth set and for the entire final set.

But Hingis, the seventh seed, played with the poise and grit of a seasoned veteran, refusing to quit. She kept running and hitting winners, and finally broke serve in a marathon 18-point 10th game to take the fourth set when Graf netted a backhand.

"It's the finals, and you want to give it everything," said

Vicenza at summit of Serie A

ROME, Nov 25: Vicenza took advantage of Internazionale's 1-1 draw in the Milan derby on Sunday to go clear at the top of the Italian First Division for the first time in their 94-year history, reports Reuters.

Goals in each half from Gabriele Ambrossetti were enough to see off bottom of the table Reggiana and given Vicenza their first taste of life at the summit of Serie A.

Despite briefly sharing the Serie A top spot in 1963, the Veneto side has never enjoyed an outright lead in the First Division.

Now, with 20 points from 10 matches, unfancied Vicenza lie one ahead of Inter and Bologna, 3-1 winners over Atalanta.

Inter, who led the table at the start of the day, made the worst possible start to a tenacious derby with AC Milan, falling behind to a Roberto Baggio goal in just four minutes.

Frenchman Marcel Desailly put the former European footballer of the year through to delicately lift the ball over the advancing Gianluca Pagliuca and into the back of the net.

Real climb atop

MADRID, Nov 25: Real Madrid knocked Barcelona off the top of the Spanish First Division on Sunday thanks to a hat-trick by Croatian international Davor Suker in a 4-2 win over Valencia, reports Reuters.

With 32 points from 14 games, Real lead by one point after Barcelona's 2-1 defeat at Athletic Bilbao on Saturday. A further point behind Barcelona are Deportivo Coruna, 4-1 winners over struggling Logrones.

Four points behind Deportivo are Real Betis, another side who hit top form to regain fourth place from Athletic Bilbao in an exciting 3-1 win over Tenerife.

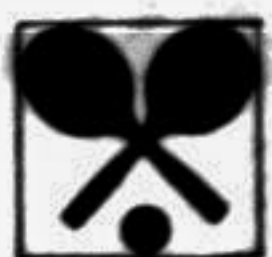
Racing Santander are seventh after a goalless draw at Espanyol, while another surprise outfit, Valladolid, are sixth ahead of today's game against champions Athletic Madrid, eighth with 21 points.

Sevilla travelled to Celta Vigo without injured Brazilian signing Bebeto and suffered a 4-2 defeat, leaving them sixth from bottom after being tipped for a UEFA Cup place.

Hercules climbed off the bottom by beating Compostela 1-0 in their first win since the opening game of the season.

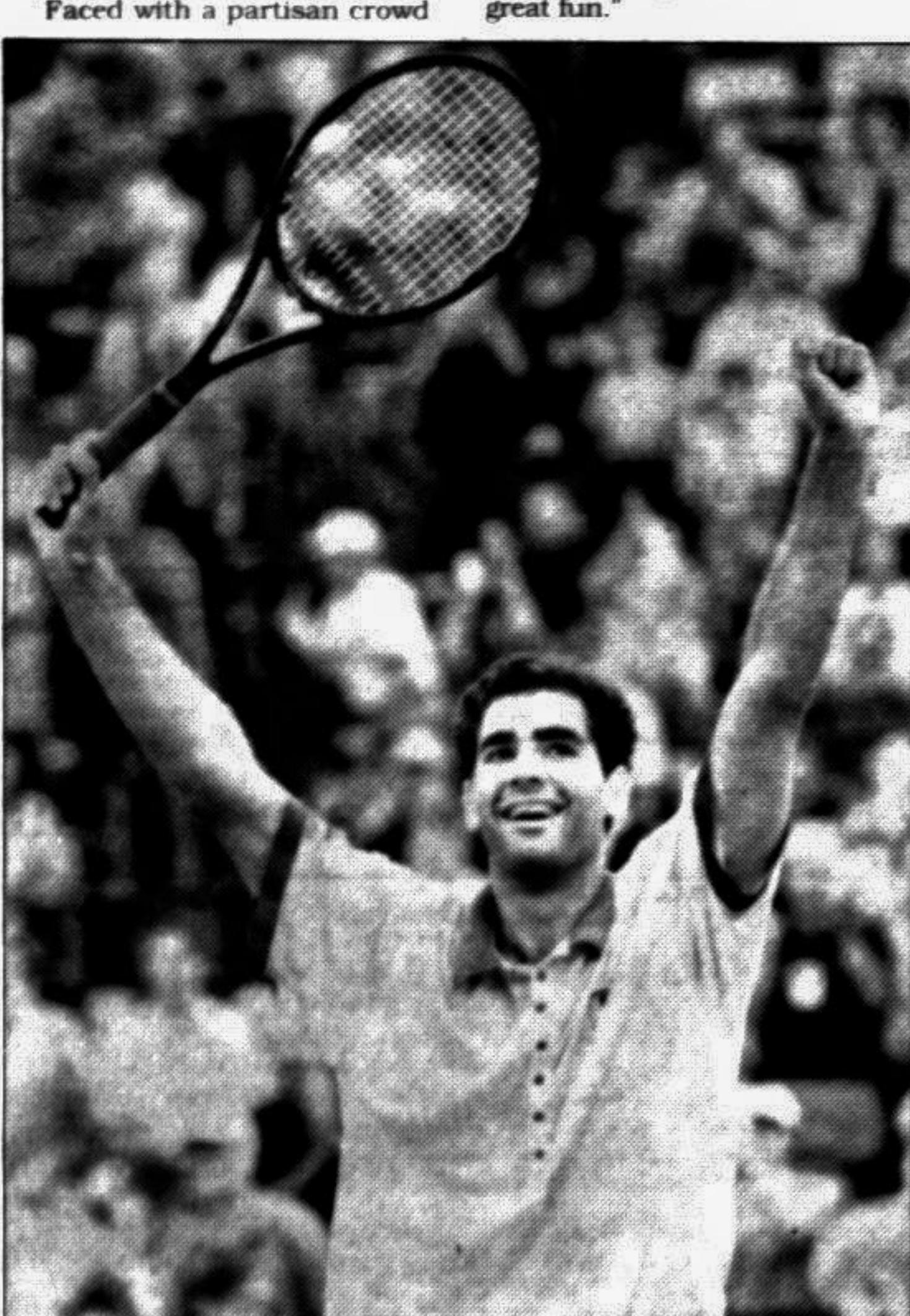
But Sampras, who also won

Pete spoils Boris' party



HANOVER, Germany, Nov 25: Pete Sampras defied an inspired Boris Becker and 15,000 fanatical German fans to clinch the ATP Tour World Championship for the third time on Sunday after one of the most dramatic five sets of the two players' lives, reports Reuters.

Faced with a partisan crowd



PETE SAMPRAS... another feather in the crown.

which roared every shot played by defending champion Becker, the American world number one showed immense composure to win 3-6, 7-6, 7-6, 6-7 and 6-4 in a four hour thriller.

The Hanover crowd chanted Becker's name like a football crowd and cheered and stamped their feet every time he won a point.

The German was inspired to what he called his ultimate performance. He forced a fifth set by saving two match points in a dramatic fourth set tiebreak which he won 13-11.

But Sampras, who also won

the tournament in 1991 and 1994, refused to be beaten and gradually carved out a victory which he will remember for a long time. The courage was worth 1.34 million dollars to his bank balance.

"What a match? Five sets against Boris on his home soil," Sampras said. "It was not easy. The crowd was right behind him. But they were fair. It was great fun."

Virtually every shot Becker hit from the front and the back of the court was perfect in the first set. Another crisp backhand clinched the German the set in 27 minutes and the crowd all rose to their feet to celebrate it.

Sampras had his first chance to bounce back in the sixth game of the second set when he had two break points but Becker saved them with some booming serves.

But when the set went to a tiebreak, the American lifted his game, clinching the decider 7-5 with a volley at the net. Sampras, who rarely shows his emotions on court, was clearly fired up and clenched his fist and roared his approval at the end of the set.

When Becker lost his nerve in the third set tiebreak the American struck again, Becker double-faulted to give Sampras a 5-4 lead and the world number one pounced with an ace and a backhand passing shot to take the decider 7-4.

With both players serving well, the fourth set was as tight. The tiebreak was dramatic.

Becker saved two match points against him before taking advantage of his fifth set point when Sampras hit a volley out of the back of the court to clinch it 13-11.

But Sampras, at 25, four years younger than his rival, bounced back again in the fifth. After a long rally in the ninth game when both players were at the back of the court, Sampras hit a backhand down the line to break Becker's serve and lead 5-4.

The German saved another match point in the next game when Sampras was serving. But the American finally triumphed when Becker hit a backhand into the net after another long rally.

Sampras became the fifth player to win the championship, which used to be known as the Masters, three or more times.

Becker and John McEnroe have also won the little three times. Ili Nastase triumphed four times and Ivan Lendl won five championships.

Office Equipment & Home Appliances

Companies talk to The Daily Star

Continued from page 16

sellers of Computers, Printers and Peripherals in Bangladesh. Flora have installed thousands of computers and printers in all sectors of business organisations. Flora specializes in:

- Network System Integration
- Information Technology (IT) Consulting Services
- Data Communication (LAN & WAN)

Distributor/Dealer: Flora Limited represents the following companies in Bangladesh: Compaq, Informix, Cisco Systems, Epson, Canon, Specialix, Hewlett Packard, Microsoft, APC.

AT&T Paradyne, Oracle, Tripplett, Master Franchise: omputerLand Corporation, USA

Persons to Contact: Mustafa Shamsul Islam, Mustafa Rafiqul Islam.

M N Islam
Managing Director

Crescent Group

1. Residential and commercial lighting fixture including low voltage energy efficient lighting fixtures, office equipment such as computer (IBM, IPC), printers, point of sale equipment, software, scanners, paper shredder, office furniture. Aerator (Oxygen producing machine used in aquaculture. Manufactured: Residential and commercial lighting fixture, office furniture, aerator. Imported: IBM multimedia, Desktop and portable laptop computer, IPCC (US & Singapore joint venture company) entertainment centre, point of sale equipment, Texas Instrument Laptop computer, printers and Micro chips. Various brand scanner paper shredder and other office

equipment Philips, Ostram, Phoenix and other Brand of Soudist (high and low pressure lamp, metal Halide, Halogen and energy efficient low voltage lamps and accessories).

2. Bohemian and Sworaski (STRASS) crystal items. Yes, Increasing awareness among the consumers toward time saving apparatus is on the rise. The young and the mid-age buyers for office equipment are on the rise and which we believe will continue.

3. or lighting we find all young mid-age and above 60 clients interested in our product because of its variety of design appealing to each segment of the buyers. For office equipment we find young and mid-age corporate buyers are more interested.

4. Yes, We feel that installment system will enable most of the consumers who are usually afraid to buy such equipment.

5. The government should evaluate the industrialisation policy necessarily in light of the present global market. For example it lower the taxes on those technology based equipment just to create and educate the local enthusiasts. After we have enough experts to manufacture these products, they should impose higher tax to encourage manufacturing. The government should also set its policy right so that more financial institutions can offer consumer leasing programmes.

6. Since establishing the first light factory, the Crescent group inspired the local entrepreneurs to go ahead, take the challenge of indus-



Mizanur Rahman
Managing Director
trialing the nation.
Although taking a differ-

ent approach toward industrialisation the group is still taking bold steps by establishing agricultural farming as an industry. It has taken the task of establishing the most innovative sectors such as plant tissue culture, Data entry and software development and solar technology based product development. Through this and other ventures, the Crescent Group is aiming at covering the nation with respect it deserves, not just creating wealth. We hope to achieve that with the blessings and help of the people of this nation.

WITH all good intention, we undertake the duty of developing a software that will make current breed of computers a little more useful. The software will be a word processor, a spreadsheet, a database management system, a data acquisition system or even a payroll system for a company. Whatever the software is, we, the programmers, always embrace it with much warmth and enthusiasm. The formal and academic method set aside, we immediately jump into the development of the software, forgetting the world around us. But soon, we get hurt by the raw reality. Our enthusiasm begins to run out and we become engulfed by agony and desperation. The process of any software development effort vividly exemplifies the typical condition of programmers, specially in the context of our country.

We may gain inspiration for a software project from some instantaneous sparkle of a new idea; an idea that will make computers more useful. The process resembles that of a poet, getting instantaneous inspiration from around himself for his next poem. On the other hand, the inspiration may come from a pure commercial point of view, carefully researching current market opportunities and niche markets. More often than not, the previous idea may take months, even years, to take shape.

After we get a solid idea to work on, our real work begins. We try to chalk out the details of the idea, collecting literature and relevant information similar ideas. We also try to find out if there is already something that has implemented the idea. By looking at all the paths that have already been traversed, we judge out a best path for our idea to come to reality. It is not at all as easy as it sounds, specially in our country. Firstly, it is very difficult, if not impossible, to find out reasonably recent papers or information in here. We

cannot be sure whether we are going to reinvent the wheel that has already been invented. Secondly, even if we get the relevant information, it becomes very hard to find out the information needed to implement the idea. Major activities in the arena of software development go in the western countries, specially in the USA. Each day, many new software and much new information are becoming available to developers. The information takes months, even years to cross the Atlantic and reach our country. All these limitations accepting, we proceed to make our dream come true.

The next step towards this is to make a formal statement of requirements that must be met to properly implement the main idea. We try to brainstorm and find out required requirements, and the unnecessary ones. And this phase is important: all other steps towards a complete software totally depend on properly expressed requirements. When working on some new idea, however, it is not always easy to foresee the requirements. That's why we often have to build a rough sketchy product, which we call prototype, and find out the requirements more thoroughly.

To meet the requirements, we then have to come up with a specification of the software. The specification, as its name implies, states how the software should behave and react. In the specification, we precisely specify the things that have to be implemented and the things that have to be omitted.

The real work begins next: the design. We try to view the problem from a technical perspective. We find out how to implement it on computers so that it meets the specification, which in turn meets the re-

Software Development : Joy or Agony?

by R A A Abdullah (Aunko)

requirements. This process kills time, because a little work can be done in many ways, and we have to make tradeoffs continuously to come up with the best design. Most often, it is not even clear which design is the best one. There are cases when we have discovered a design is not suitable for a specific job only after implementing it and using it in real life. We had the repeat the whole process again. It is one of the most time consuming phase of software development.

Design and coding go hand in hand for us. By coding, we mean the process of composing instructions that we write in some programming language to perform some task designed previously. We constantly have to code and re-code portions of the software. To get a few lines of code working properly, it may take hours, days, even weeks of constant attention. And a moderate software normally consists of thousands of lines of code. To tame this huge mess of code, we usually implement the software module by module, and then try to put them together. After countless painstaking hours, many sleepless nights and even more hair-pulling frustrating days, we get an initial version of our software.

Although by this time we have a working version of our software, it is only the beginning of a long and tedious process: debugging. By debugging, we refer to the process of eliminating errors from programmes. Don't misunderstand that debugging is a distinct and separate process. It is applied from the very beginning of a software life, and spans even to the step of maintenance. Particularly in the coding phase, we have to do a lot of debugging, spending almost half of the to-

tal coding time. The initial version, when extensively tested, reveals many errors: certainly enough to frustrate a programmer. This is the phase when most of the would-be programmers fall apart. The software is also tested against the requirements and specification to assert that it meets both of those. Any discrepancy would have to be resolved by redesigning and re-coding the relevant parts.

Sometimes it happens that the requirements need change while software is under coding or designing phase. In these cases, the whole process, beginning from the requirement analysis, have to be redone for a part. Things get worse when changes to one part ripples through many other parts of the project. As the size of the project grows, it becomes increasingly difficult to make changes to any part of it.

During these phases of software development, effectively, we have to work for 24 hours a day and 7 days a week. Even in our dreams, the minute design issues and problems chase us down. Often, a simple problem may need constant attention for several hours. As it happens to us, there are many instances of working constantly for more than twelve hours in front of a computer. And for us, the poor programmers, there is nothing called day or night. We usually start coding twelve o'clock at night and continue up to 4 AM or even 8 AM in the morning. In day-time, we discuss problems and possibilities with our co-workers.

After countless hours of testing and debugging, when we are reasonably sure that the programme is behaving correctly, we proceed to the difficult part of marketing it. But before reaching the market, there are

many more painstaking processes that must be complete. A good help system should be implemented in the software. A User's Guide must be ready. It should be easy, complete and correct.

The process of writing a User's Guide usually begins during the debugging, or even coding process of the software. There is usually no one other than us to write down the manual. For us, this is a big hurdle. We usually talk in cryptic language and write down bad grammar. No doubt, manuals written by us bear the signs of these properties. Anyway, we give our best shot at writing a user-understandable manual. This process is much more difficult than writing a programme, which is particularly true for programmers. But this does not put an end to our series of pains. We also do a few other things: making a quick reference card for commands, making installation programmes, etc.

When everything is complete, we finally end up marketing it. Although marketing proper is not particularly our headache (it is for marketing department), we do have to get involved in marketing in many respects. We often have to make speeches, write papers and present the software itself. We even have to conduct training courses on the software. The situation is specially true for Bangladesh, where we even have to go to the software installation site and install and provide necessary training over there.

When market begins to absorb the software, we drown into the burden of support and maintenance measures. Apart from providing training and support, we have to fix any error discovered by users of the

software. We even have to provide support over telephone. Although these things seem trivial, all these kills our valuable time, which is better spent on programming. A single interruption during a programming session is enough to make the whole effort worthless. Often we have to start to think over a particular problem because we are continuously interrupted. As a result, our productivity falls down to almost null. To drag the productivity out from the null zone, we try harder and harder.

Obviously, there is nothing called social life for programmers. For our very nature, society does not accept us very friendly. Friends of ours tend to be limited in the programmer's community. We normally grow a habit of waking all night and disturbing other members of our family. Social gatherings do not attract us so much and we tend to work better alone. As a result, we fall apart from the rest of the society. These are the prices to pay when we get deeply involved into some programming problems.

Still, after sustaining all these agonizing pains, we create software. We create software not because it generates money (in our country, it does not), but because we want to be creators of something original, useful and beautiful. When someone uses our software and says, 'Hay! I like that aspect of your software', that becomes our ultimate inspiration. All the pain and agony turn in an instance into joy when we see our software being used in real life to perform real jobs. We forget all the pains, all the nightmares, all the humiliations of creating software, and jump into creating the next software of our dream. The software that will make our lives a little more comfortable.

(Abridged)
The writer is a professional in the computer sector.