

## Model Answers

### E-Commerce:

*Imagine you have written a program that you want to commercialise  
Outline a design for a web-site for the wider dissemination and/or sale of the program*

*Actual HTML is not required, nor are details of the program. Your answer should include:*

*Elements of the business model, and a description of any mechanism or legal framework needed [5 marks]*

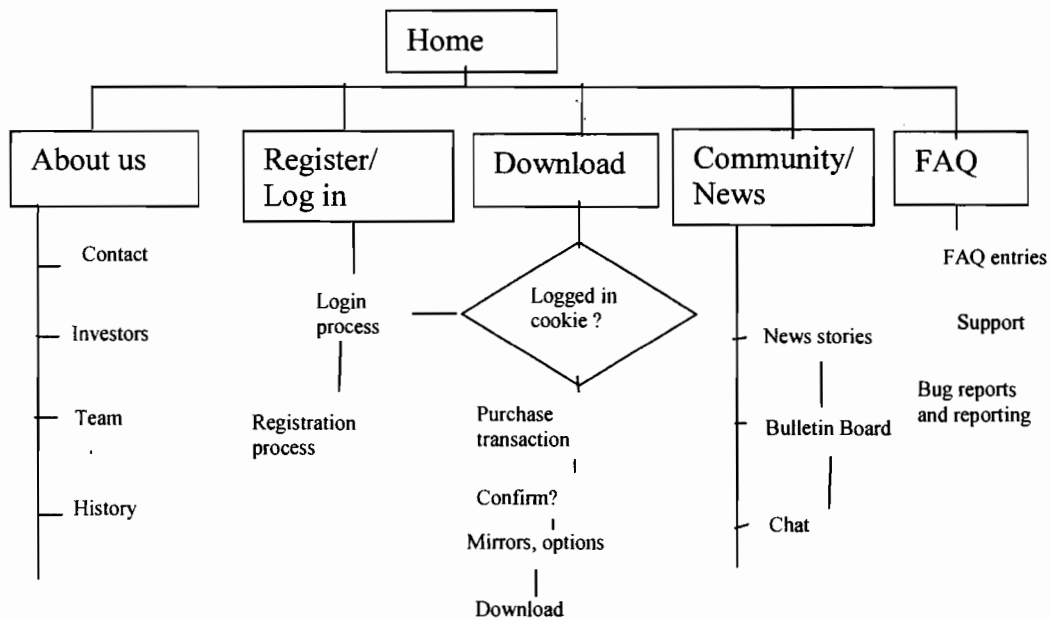
Candidates should choose a business model from one (or some combination) of

- Open, where the program can be freely downloaded, and income is derived only from consultancy and support. Variations include Open Source, where the source code is also available, usually in a joint development environment. Licences to support this are usually some form of *copyleft* such as the well known GPL from the Free Software foundation, whereby use and redistribution is permitted, provided the same GPL is attached, and any changes to the code are submitted to the original author for possible future inclusion. Where this model is used, sites and projects can be hosted using support facilities for open source projects such as Sourceforge.net. Of course there is a risk that secondary sales, such as consultancy, training and maintenance do not materialise.
- Purchase, where the software is downloaded for some price. Normally a *EULA* (End User Licence Agreement). The purchase may be restricted in various ways, for example to a specific machine or a specific time period. Support and maintenance can be sold separately.
- Subscription/rental. "Software as a service". Instead of a single payment, payment may be spread over the expected life of the program, for example by a rental/service agreement. This model is often used where the program is to be remotely hosted, or where there is particular reliance on external data, such as a share price feed, or where frequent updates are expected such as tax calculations.

These models can be combined successfully, for example open distribution for personal and academic use, but requiring a purchased licence for commercial use.

Variations of these models allow "try before you buy" by, for example allowing the user a free use period, either on trust or enforced by some suitably hidden code in the program, with full use permitted by a key encrypted against the program serial number or account details.

*A high-level site map. Outline any special features, such as registration, tracking or subscriptions that you will need to implement* [5 marks]

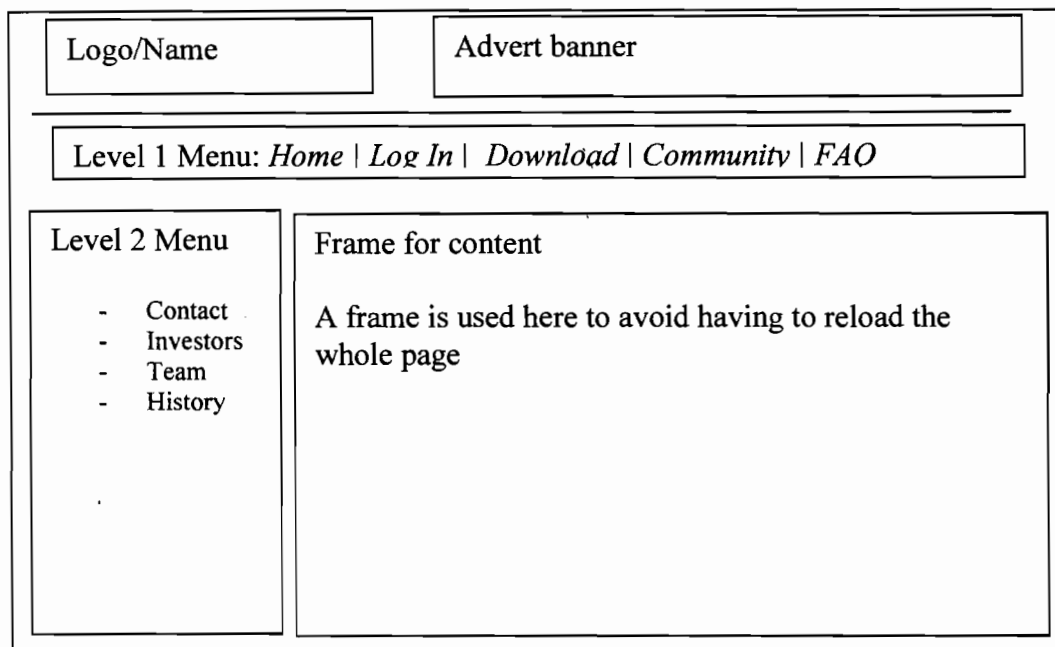


Registration collects user data. Even if the program is free, it may be useful to collect data about who is using it.

Logging in typically puts a cookie on the user's site, that can be checked subsequently to give identity.

News and bulletin board can be supported by standard open software such as Kuro5ins Scoop.

*A sketch of a typical page. Explain any features you use to enhance performance.  
[5 marks]*



Since this is to support program distribution it is likely to be used on a system with a reasonable size screen, so there will probably not be a need for versions and automatic detection of small screen sizes or low bandwidth connections such as for mobiles (although companies like nGame and Handango distribute games and other programs for mobiles)

Page weight should be minimised to assist fast loading: 64Kb target This may mean reducing the size or colour depth of graphics.

Colour palette should be pastels, not saturated colour

Background should be large-scale tiled pattern

Text should be actual characters, not pictures of text.

*How could you market and drive traffic to the site?*

*[5 marks]*

- Ensure registration with search engines, and many mutual links to increase page rank
- Get mentioned on Slashdot
- Advertise/editorial/PR with the relevant paper media, such as trade journals
- Participate in relevant technical discussion groups
- Ensure the site is kept "fresh" with new news and developments, so that it is worth re-visiting. One way to do this is to build on the community/bulletin board section, where users contribute content, either directly or via mediation.
- E-Mail shot registered users who have so requested with news and BB summaries