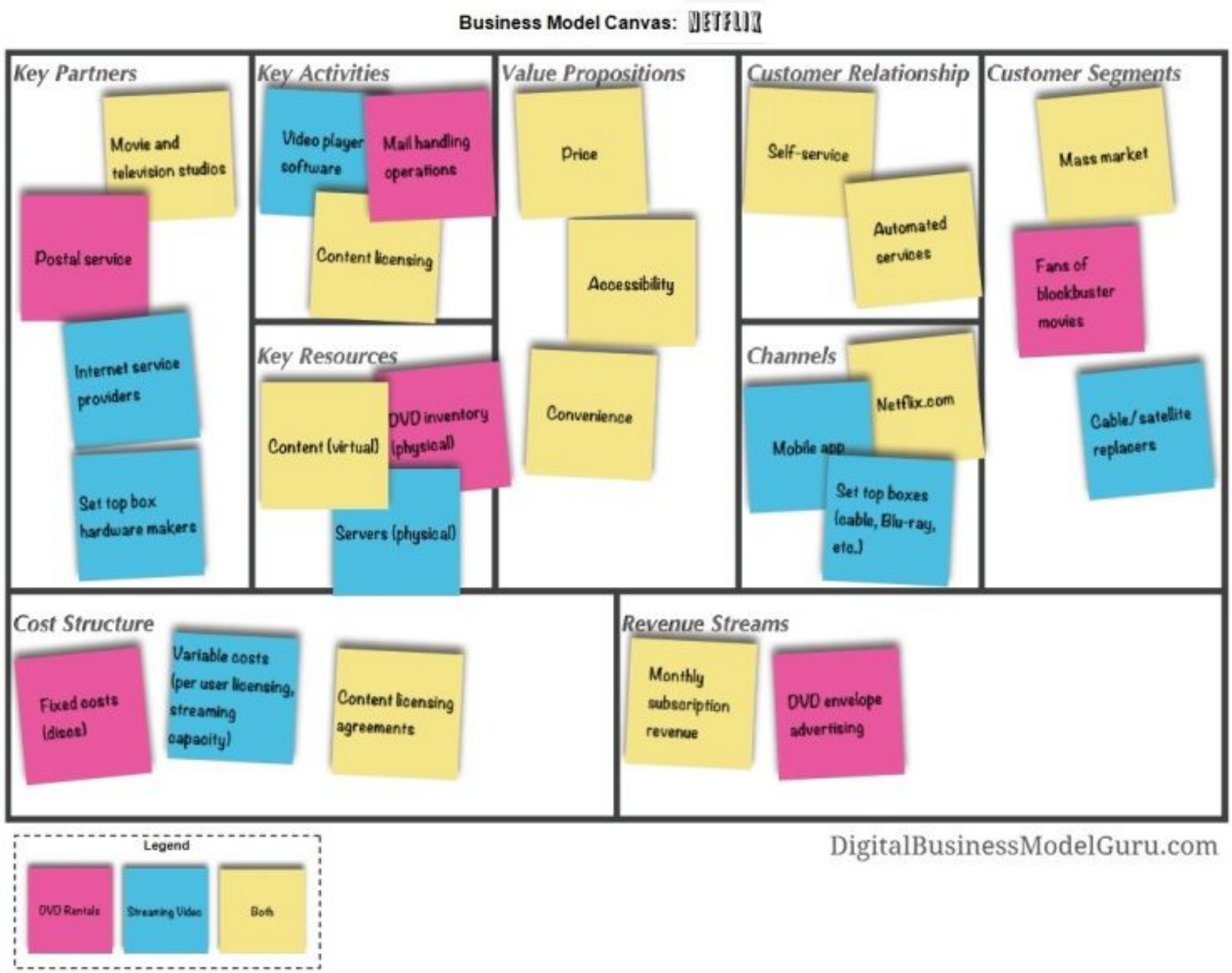
Family Name ....

Given Name ...SOLUTIONS............

Student ID ....

GSOE 9758: Network Systems Architecture
Session 2, 2018: Mid-Session Test

Question I: [20 points] The figure below shows the business model canvas for Netflix, which is a company that started in 1997 with mail-order DVD rentals, and is now a giant that provides online streaming video of movies and TV shows across many countries in the world.



Based on Netflix's business model canvas above, answer each of the following questions in 2-3 sentences each (2 points each):

(a) The "Value Proposition" includes "convenience" – briefly describe in what way the Netflix DVD rental service was convenient to consumers, and in what way the Netflix streaming video service is convenient to consumers.

Netflix DVD rentals were convenient to customers as they did not need to leave the house to get their movies – the DVDs were delivered to their home via post.
Netflix streaming video is even more convenient as customers don't' need to leave their house, nor wait for shipping as the video is delivered immediately via the Internet.

(b) The "Customer Segment" includes "cable/satellite replacers". State one type of content that cable/satellite customers can also get from Netflix, and one type of content that such customers do <u>not</u> currently get from Netflix.

Cable/satellite subscribers can get movies and TV shows. They cannot however get live events (such as sports games) from Netflix.

(c) Briefly explain what you understand by the statement that Netflix's "Customer Relationship" is "self-service – you may want to illustrate with a small example of how a customer interacts with Netflix.

Customer signs themselves for Netflix via an online web-page, i.e. without needing to talk to a human, hence "self-service". Similarly they can choose whatever movie/show they want to watch, without needing any human assistance from Netflix.

(d) One of Netflix's "Key Partners" is "movie and television studios" – what do studios provide to Netflix? Why do studios now feel threatened by Netflix (recall the presentation on Time Warner and Fox merger).

Studios provide the content, i.e. movies and TV shows, to Netflix. Studios were originally happy because they get a new channel to reach customers, and Netflix pays the studios for license to host and stream the content. Now studios feel threatened because Netflix commands the market as the largest channel, which means it has monopoly power over the studios, and is moreover producing its own content thereby competing with studios.

(e) Why does Netflix need "servers" as a "Key Resource"? Give one reason why Netflix migrated all its servers to Amazon's AWS in 2016.

Netflix stores the media content (movies/shows) in digital form on servers that can stream the video to end-user clients (computers, smart-TVs, etc.), hence servers are an important key resource. Netflix now has so much content that managing servers in-house is expensive and time-consuming, so they decided to migrate their servers to AWS so they do not have to do server management, and it becomes an elastic cost that scales with their content and customer base.

(f) Netflix's "Revenue Stream" is largely from "monthly subscriptions". State one advantage and one disadvantage of this revenue model as compared to Apple's "pay-per-view" model.

Monthly subscriptions mean there is a steady and predictable income stream, and this predictability in revenues is an advantage. The disadvantage is that the all-you-can-eat flat-pricing model requires large volume of customers so the costs of managing high-consuming and low-consuming consumers is balanced out.

(g) Netflix's "Cost Structure" includes "content licensing agreements" – name one entity that Netflix pays for the licensing. In your estimate, what percentage of Netflix's costs are related to content licensing?

Netflix pays studios (Disney, Fox, etc.) for licensing content. A majority (> 50%) of Netflix costs are associated with licensing, since content is not cheap!

(h) Netflix now produces many television series of its own – in fact in 2018 Netflix produced more content than any single Hollywood studio. Why is Netflix doing this?

As Netflix grows it has deeper pockets and is looking to take on more of the eco-system. Since content costs are high, Netflix is trying to do more content production in-house. Also, since it knows consumer taste (based on their viewing habits), it can produce series that may have wider appeal.

(i) One of the key assets of Netflix is the data of what people watch – how can Netflix use this data, and why is it important for Netflix?

Netflix knows what people watch, how much, at what time, and with what attention span. All these give it an incredible wealth of data that can improve recommendations, and also possibly be of use to marketers.

(j) Why do Internet Service Providers (ISPs) have a problem with Netflix? Describe one way in which ISPs are responding to Netflix.

ISPs bear the cost of carrying Netflix content across their network (it is common for 30-40% of network traffic today to be from Netflix). However, ISPs do not make any extra money, neither from subscribers nor from Netflix itself. The increase in carriage cost, without any increase in revenue, makes ISPs unhappy with Netflix. ISPs are responding to Netflix in different ways – in Australia Telstra is offering its own TV services, while Optus is focusing on sporting event broadcast rights (e.g. English Premier League soccer.

[END OF TEST]